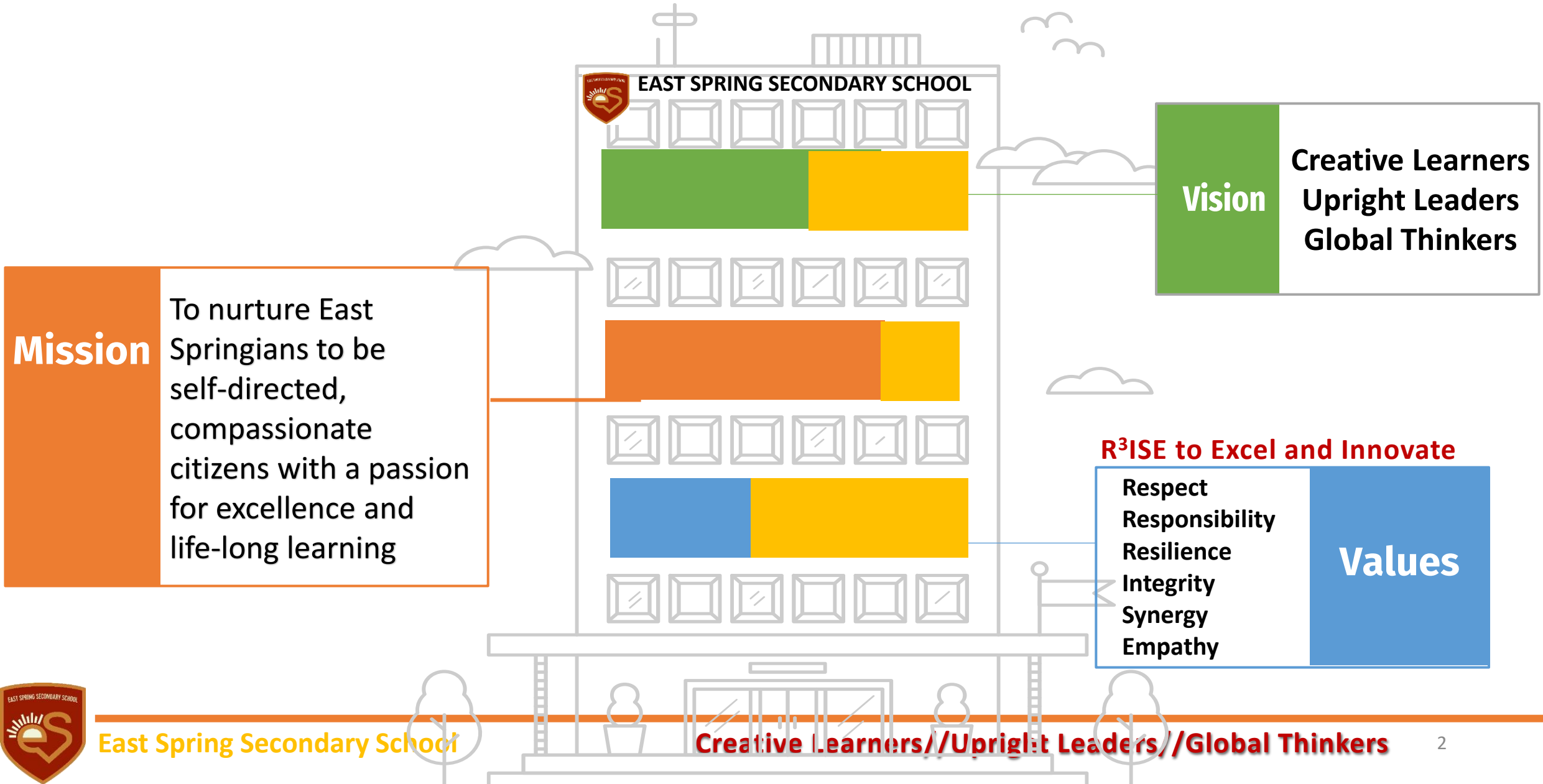


# Secondary Two Meet-the-Parents Session School Leaders' Address

9 May 2025



# East Spring Secondary School



# School Theme 2025

## Building Dreams, Realising Aspirations

---

### We Believe in our Students

- We believe our students have potential and **talent**
- We want our students to **experience success**
- We want our students to be values-driven, to have the **mindset of excellence**



# The Iceberg Illusion

Success  
is an  
iceberg

**SUCCESS!**

WHAT PEOPLE  
SEE

Persistence



Failure



Sacrifice



Disappointment



WHAT PEOPLE  
DON'T SEE

Dedication



Hard work

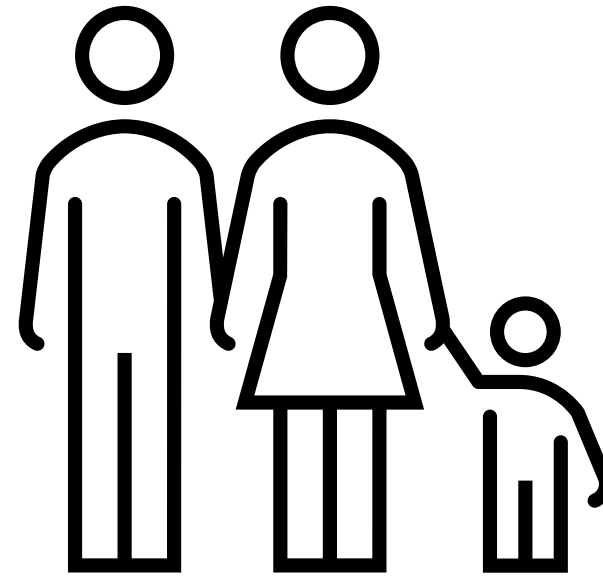


Discipline



@sylviaaduckworth

# Supporting your child



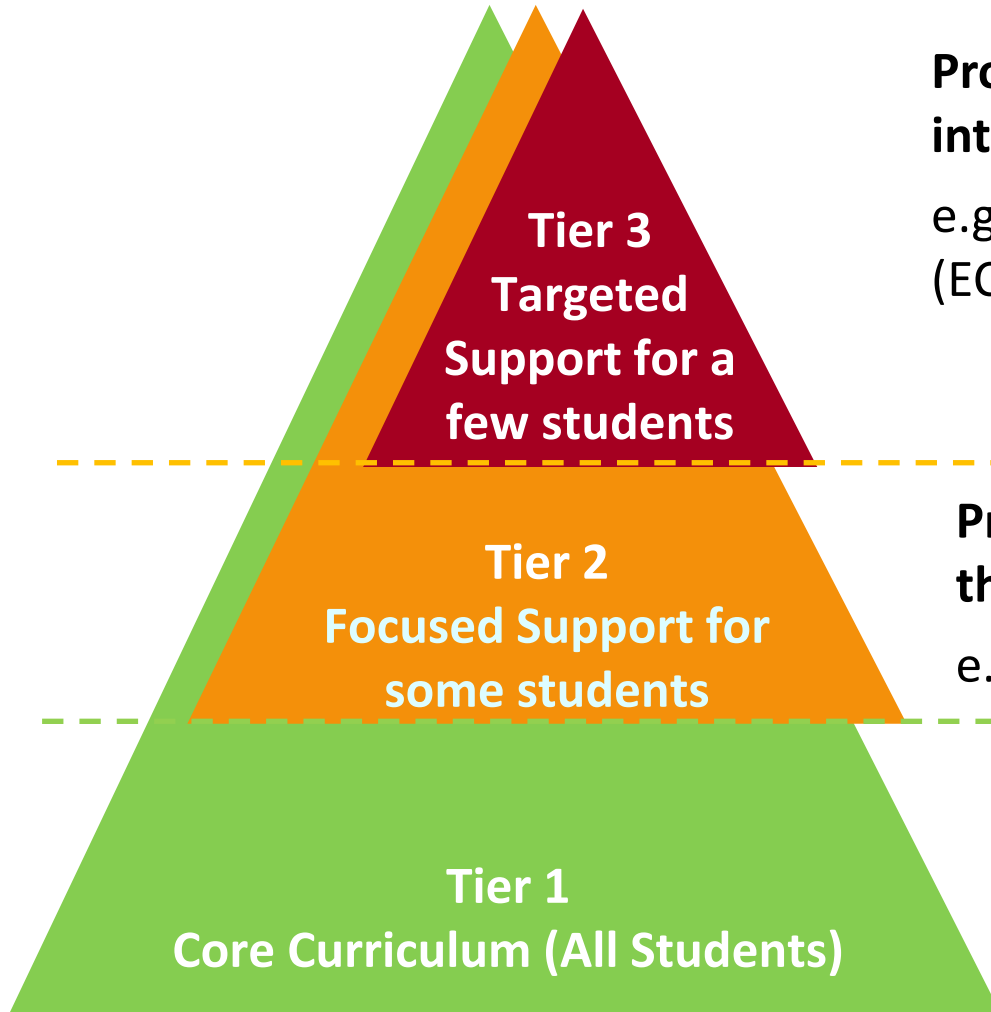


A dirt road with a large puddle in the center leads into the distance, flanked by rows of grapevines supported by wooden stakes. The sky is a warm, orange-hued sunset with soft clouds.

The road to success is  
through commitment.

Will Smith

# Character Development @ ESSS



**Provide small group and individualised educational support / interventions for students of certain needs**

e.g. 1-1 FT conversation, Meeting Education and Career Guidance (ECG) Counsellor, Attending Leadership Symposiums

**Provide focused support and education to equip students with the necessary skill and knowledge.**

e.g. Student Leaders, PSL training etc, Overseas Learning Journey

**Establish caring and enabling school environment**

- Put in place a total curriculum that builds protective factors and promotes holistic development of all students.
- e.g. RISE/CCE Lessons, Assembly Talks, Cohort Camps



# Character Development @ ESSS

## **Parent Teacher Conference**

Term 2 Week 10 (30 May)

## **Secondary 2 Cohort Outdoor Adventure Learning (OAL) Camp**

Term 3 Week 2 (8 July to 11 July)\*

*\*Tentative dates*





# Q&A: Questions on Subject Combinations

1. How do we know which subject combination would be apt for my child's interests?
2. How can we help my child to choose subjects?
3. What are the different subject combinations in Sec 3?



# How to support your child in choosing subject options

**1. Take a step back from our expectations**

**2. Hear our teens out**

**3. It's okay to be uncertain  
(this applies to parents too)**

**4. Knowledge is power**



# How to support your child in choosing subject options?

## Interests

What subjects do your child enjoy and why?



## Strengths

What subjects are your child good at?



## Aspirations

What are your child's education and career goals?

## Total Curriculum Load

What might be a suitable number and mix of subjects that your child can manage, taking into consideration the nature and coursework of the subjects?

# Hello from your ECG Counsellor, Ms Q

Mondays – Fridays  
Media Resource Library



<https://for.edu.sg/esssecg>



# Post-secondary pathways and criteria





# Q&A: Questions on Education Pathways

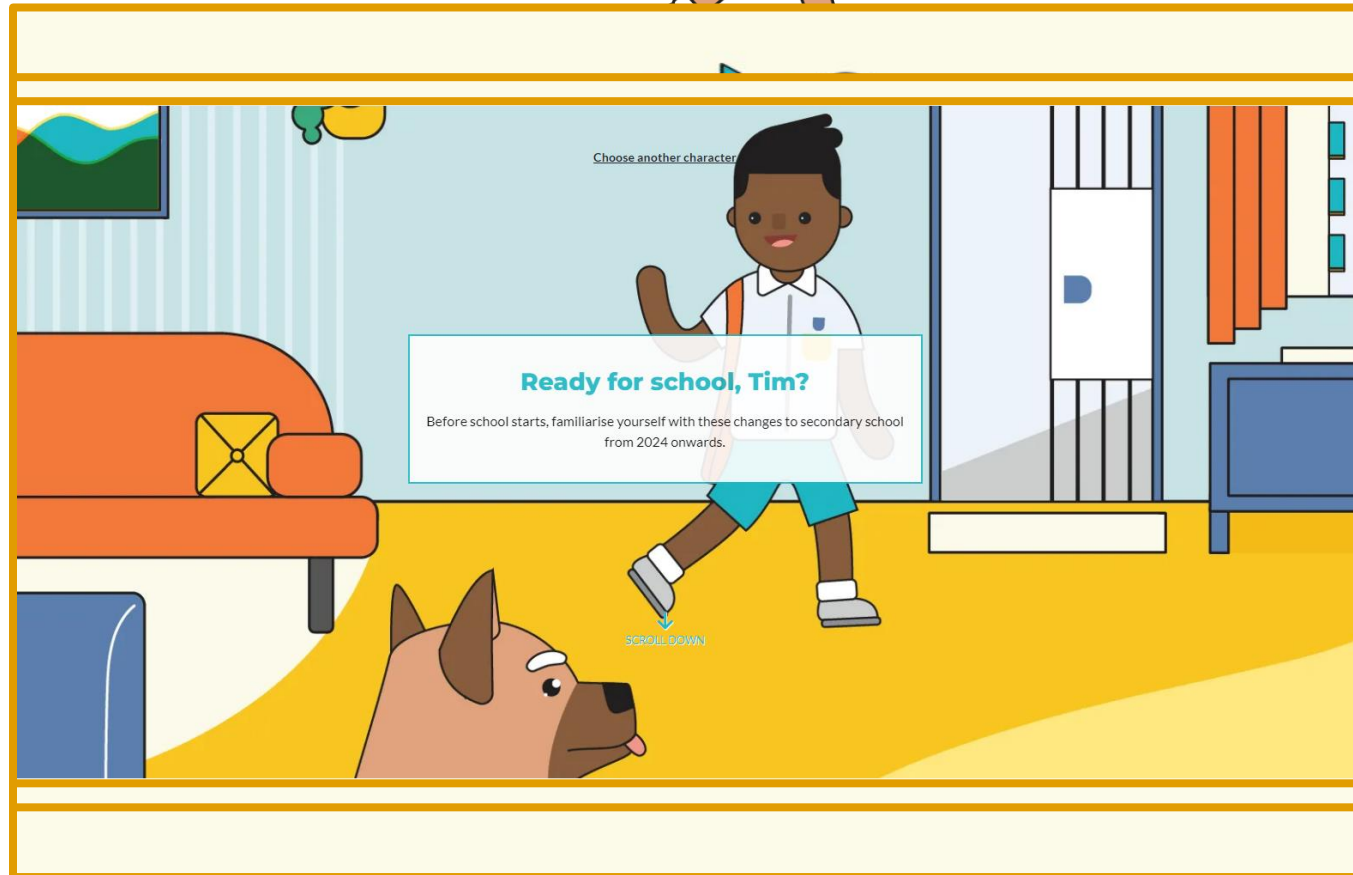
1. What are the different post-secondary options?
2. What is the number of G3 subjects required for students to be eligible for JC admission and polytechnic first year?
3. What are the post secondary options for students who have a mixture of G2 and G3 subjects?
4. What are the pathways for G1 students after secondary school?



# Interactive Site: Where will your path lead?

<https://go.gov.sg/my-fsbb-path>

Find out each  
student's unique Full  
SBB experience  
through this  
interactive site.  
(updated Mar 2024)



# What's next?



Secondary 1 & 2

End of Secondary 2

Secondary 3 & 4

## Deciding on upper secondary subject combinations

All students will offer at least 5 examinable subjects for upper secondary.

## Upper secondary

Students will continue to have flexibility to offer subjects at different subject levels, including elective subjects (e.g. Additional Mathematics, Art, Design & Technology).

# Criteria for Promotion from Sec 2 to Sec 3

Students Taking ...	Criteria for Promotion to Sec 3
predominantly G3 Subjects	<ul style="list-style-type: none"><li>• Pass in EL and 2 other subjects, <i>or</i></li><li>• Pass in 5 subjects</li></ul>
predominantly G2 Subjects	
predominantly G1 Subjects	<ul style="list-style-type: none"><li>• Pass in EL and 2 other subjects, <i>or</i></li><li>• Pass in 3 subjects</li></ul>



# Offering Subjects at More Demanding Level in Upper Secondary

- Students may offer subjects at MDL in Secondary 3

## • For students from G2 Course

- ☐ 75% and above for at level subjects (EL, MA, Sci, MTL, Humanities)
- ☐ 50% and above for existing MDL subjects

## • For students from G1 Course

- ☐ 75% and above for at level subjects (EL, MA, Sci & MTL)
- ☐ 50% and above for existing MDL subjects
- ☐ ***For Humanities***
  - 70% for at level EL **AND** Distinction in SS component  
OR
  - 50% for EL at MDL **AND** Distinction in SS component



# What's next?

## End of Secondary 4/5

### Singapore-Cambridge Secondary Education Certificate (SEC) Examination

From 2027, students will sit for the new SEC examinations, with different papers for each subject level.

All students will take their examinations in the same period.

Written examinations for English and Mother Tongue Language (MTL) will be conducted ~1 month ahead of other subjects.

## Post-Secondary

### Admission to post-secondary education institutes

Admission criteria have been progressively updated to recognise students taking different combinations of subjects and subject levels.

- E.g., Polytechnic Foundation Programme (PFP) has been expanded to allow access to students offering G3 subjects, or a mix of G2 and G3 subjects.

# Overview of Post-Secondary Pathways

**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
5 G3 subjects	✓	✓	NEW ✓	✓	✓	NEW ✓
4 G3 + 1 G2 subjects	✓	✓	NEW ✓	NEW ✓		
5 G2 subjects	✓	✓	✓			
4 G1 subjects	✓	NEW* ✓				

\*Students who offer 4 G1 subjects will join Year 1 of Higher Nitec, and may be offered the accelerated pathway if they meet academic requirements during their Year 1 Semester 1 examinations. **This pathway will allow them to attain a Higher Nitec in a shorter duration of about two years.**

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

# Admissions to JC/MI

- From 2028 JC1 cohort, JC admission criteria will be **revised from L1R5 to L1R4**.
  - This allows students to recalibrate curriculum load by offering one fewer subject, and use freed-up time to pursue their interest and strengthen development of 21st Century Competencies e.g. through CCA or school programmes.

Students taking at least	POST-SEC PATHWAYS				Millennia Institute	Junior College
	ITE Year 1 Entry	ITE Year 2 Entry	Polytechnic Foundation Programme (PFP)	Polytechnic Year 1		
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

1) Qualifying threshold for JC revised to  $L1R4 \leq 16$  and retained at  $L1R4 \leq 20$  for MI

	Aggregate Scores (computed with G3 subjects)	Qualifying Threshold
Junior College	L1R4	$\leq 16$
Millenia Institute	L1R4	$\leq 20$

2) Minimum subject grade requirements will remain

Subject	Grade
English Language	1-6 at G3
Mathematics (Elementary/Additional)	1-7 at G3
Any one Mother Tongue Language	Higher Mother Tongue Language: 1-8 at G3 Mother Tongue Language: 1-7 at G3; 1-5 at G2; A-D at G1

# Admissions to JC/MI

- **JC/MI aggregate score will include Language, Humanities and Mathematics/Science subjects**
  - This ensures that students continue to cope with the academic rigour of the A-Level pathway.

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
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

JC/MI aggregate score composition	Subjects
First Language ("L1")	English or Higher Mother Tongue
Relevant Subject 1 ("R1")	Best-scoring subject from Humanities
Relevant Subject 2 ("R2")	Best-scoring subject from Mathematics or Science
Relevant Subject 3 ("R3")	Best-scoring subject from Humanities, Mathematics or Science
Relevant Subject 4 ("R4")	Any best-scoring subject except Religious Knowledge

- **Bonus points cap will be capped at three bonus points.**
  - CCA Excellent – 2 points
  - CCA Good – 1 point

To understand the levels of attainment for LEAPS, please refer to pages 43 and 44, Student Handbook.

# Admissions to Polytechnic Year 1

- From 2028, one 'Best' [B] subject can be fulfilled at G2 or G3 as part of the ELR2B2 aggregate score for admission to Polytechnic Year 1.
- Students who offer both [B] subjects at G3 will have the [B] subject with a lower grade mapped from G3 to G2 based on a grade mapping table.
- The net aggregate cut-off will be **22 points** (based on 4G3 and 1 G2).

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
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

ELR2B2	
Subjects	Subject Level
English Language (EL)	G3
2 Relevant subjects (R2)	
One of the [B] subjects	
2 <sup>nd</sup> [B] subject	G2 (G3 subjects to be mapped to G2 grade)

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



# Admissions to Polytechnic Foundation Programme (PFP)

- Admissions will be restructured to a cluster-based approach
- Students will enter one of the following three key broad clusters. At the end of the PFP year, students will then apply to a specific diploma course within the cluster, and posting will be based on their PFP performance and course choice:
  - Sciences
  - Humanities, Art, Media and Business
  - Design, Engineering & Technology

*(NYP and TP offer two sub-clusters: (i) Design and (ii) Engineering & Technology)*
- Diploma-specific admission to PFP will continue for Nursing, Tamil Studies in Early Education and Early Childhood Development & Education courses as these courses are more specialised. Students who are keen on these specialised diploma courses can continue to gain admission through entering PFP for the specific diploma directly or through the cluster-based approach.

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
5 G3 subjects	✓	✓	NEW ✓	✓	✓	NEW ✓
4 G3 + 1 G2 subject	✓	✓	NEW ✓	NEW ✓		
5 G2 subjects	✓	✓	✓			
4 G1 subjects	✓	NEW* ✓				

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

# Admissions to Polytechnic Foundation Programme (PFP)

- Students offering G3 subjects, or a mix of G2 and G3 subjects will be allowed to access PFP.
  - For purposes of admission to PFP, the requirements for English, Math, the 'Relevant' [R] subject and 'Best' [B] subjects will be mapped at the G2 level, instead of G3.
  - The minimum G2 grades are indicated in the table below.
  - ELMAB3 raw aggregate score of  $\leq 12$  points (based on G2)**

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
5 G3 subjects	✓	✓	NEW ✓	✓	✓	NEW ✓
4 G3 + 1 G2 subject	✓	✓	NEW ✓	NEW ✓		
5 G2 subjects	✓	✓	✓			
4 G1 subjects	✓	NEW* ✓				

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

Subject specific requirements for PFP	
G2 subjects	New grade requirement
English Language	3
Mathematics	3
Relevant Subject	3
Two "Best" Subjects	4

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

# Admissions to ITE Year 2 (for G2 or G3 students)

- From AY2028 ITE intake, admission requirements for direct entry into Year 2 of three-year Higher Nitec courses will be set at G2.
- Student must obtain an **ELMAB3 aggregate of 19 points or better, based on G2 grades.**
- Students with G2 subjects, or a mix of G2 and G3 subjects will be able to apply for direct entry into Higher Nitec Year 2. G3 grades will be mapped to G2-based on the grade mapping table.

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
5 G3 subjects	✓	✓	NEW ✓	✓	✓	NEW ✓
4 G3 + 1 G2 subject	✓	✓	NEW ✓	NEW ✓		
5 G2 subjects	✓	✓	✓			
4 G1 subjects	✓	NEW* ✓				

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

**Grade Mapping Table from G3 to G2**

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

# Admissions to ITE Year 1 (for G1 students)

- From AY2028 ITE intake, admissions requirements for entry to **Year 1** of **3-year** Higher Nitec courses will be set at G1.
- ITE aggregate score will be computed based on four G1 subjects
- G3 and G2 grades will be mapped to G1 based on the grade mapping table.
- Students who meet academic requirements during their Year 1 Semester 1 examinations may be offered the option for in-flight acceleration, which allows direct progression directly to Year 2 in the following semester.

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
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

Grade mapping table (G3 to G2 to G1)		
G3	G2	G1
A1-B3	1	A
B4-C6	2	A
D7	3	A
E8	4	B
9	5	C
-	6	D
-	-	E

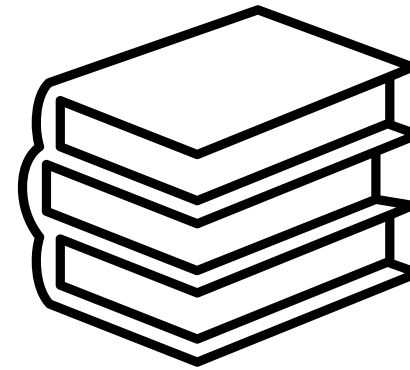
# Progression from ITE to Polytechnics

- From the AY2027 Poly intake, all Higher Nitec graduates with a minimum raw GPA of 2.5 will be eligible to apply for admission to Polytechnics.
- From the AY2027 Poly intake, **polytechnic admission will be guaranteed to all Higher Nitec graduates with a minimum raw GPA of 3.5**, for admission to poly courses that are mapped to ITE courses
- Singapore Citizens (<30 years old) who progress from ITE to a MOE-funded diploma will receive the **ITE Progression Award** (\$5,000 top-up to PSEA). When you complete your MOE-funded diploma, you will receive \$10,000 CPF-OA top-up.





# Subject Options and Combinations



# Number of subjects offered for each course

G1	G2	G3
6	6	6 or 7



# Sec 3 **G1** 2026 Subject Combinations

<b>English</b>	<b>Mathematics</b>	<b>Mother Tongue</b>
<b>Science</b>	<b>Computing</b>	Design & Technology (D&T) Nutrition and Food Science (NFS) Art Music



# Sec 3 **G2** 2026 Subject Combinations

English	Mathematics	Mother Tongue
<b>Humanities</b> (SS/Geog) (SS/History)	<b>Science</b> (Chem/Phy) (Chem/Bio)	D&T [G3] NFS [G3] Art [G3] A-Maths [G2]



# Sec 3 **G3** 2026 6-Subject Combinations

English	Mathematics	Mother Tongue
<b>Humanities</b> (SS/Geog) (SS/History) (SS/Lit)	<b>Science</b> (Chem/Phy) (Chem/Bio)	Design & Technology (D&T) / Nutrition and Food Science (NFS) / Art / A-Maths / Literature Geography / History



# Sec 3 **G3** 2026 7-Subject Combinations [7A]

English	Mathematics	Mother Tongue	A-Maths
<b>Humanities</b> (SS/Geog) (SS/History) (SS/Lit)	<b>Chemistry</b>	<b>Biology Physics</b>	





# Sec 3 **G3** 2026 7-Subject Combinations [7B]

English	Mathematics	Mother Tongue	A-Maths
<b>Humanities</b> (SS/Geog) (SS/History) (SS/Lit)	<b>Science</b> (Chem/Phy) (Chem/Bio)	<b>Geography</b> <b>History</b> <b>Literature</b>	



# Key Considerations in Subject Allocation

## Criteria for more demanding level (MDL) subject(s) at Sec 3

### For students from G2 Course

- ☐ 75% and above for at level subjects (EL, MA, Sci, MTL, Humanities)
- ☐ 50% and above for MDL

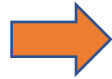
### For students from G1 Course

- ☐ 75% and above for at level subjects (EL, MA, Sci & MTL)
- ☐ 50% and above for MDL
- ☐ ***For Humanities***
  - 70% for at level EL **AND** Distinction in SS component OR
  - 50% for EL at MDL **AND** Distinction in SS component



# Key Considerations in Subject Allocation

- ☐ Student Choice
- ☐ Student Merit
  - ☐ Overall Performance Across All Subjects
  - ☐ Performance in Individual Subjects
- ☐ Teacher Feedback



Sec 3 Subject	Benchmark at Sec 2
A Maths	70% in Maths <u>and</u> 70% in Algebra Component in EOY
Physics, Chemistry, Biology	70% in Science
Geography	Pass in English Language <u>and</u> 70% in Geography
History	Pass in English Language <u>and</u> 70% in History
Literature	Pass in English Language <u>and</u> 70% in Literature
D&T, NFS, Art	70% in the Choice of Subject



# Subject Briefing

Programme	Staff
<b>Subject Briefing: Craft And Tech</b>	HOD/C&T
<b>Subject Briefing : A Maths</b>	HOD/Maths
<b>Subject Briefing : Humanities</b>	HOD/Humanities
<b>Subject Briefing : Literature in English</b>	HOD/ EL
<b>Subject Briefing : Science</b>	HOD/Science
<b>Closure</b>	AYH



# Craft and Technology

Art | Design and Technology | Nutrition and Food Science | Music

Ms Clara Sng, HOD Craft and Technology



# Coursework Subjects Offered in 2026

Subjects	Level
Art	G1 and G3
Design & Technology (D&T)	G1 and G3
Nutrition Food Science (NFS)	G1 and G3
Music	G1 only

All **PG 2 students** who select Art, D&T or NFS will be offered to take the subject at **G3 level**.

Grade Mapping Table

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



# Common Misconceptions

D&T is just about  
woodwork and  
hammering nails?

I love food and  
want to be the  
next masterchef.  
Of course I take  
NFS!

These subjects are  
all hands-on.  
There's no need  
to study!

Art is all about  
drawing right?  
Teacher, I can't  
sing, so music  
is out!





# Art

## Drawing



## Digital Imaging



## Fine Art



## Design



Develop students as active artists who:

- have confidence to **express artistic intent through visual language**
- are **critical, adaptive and inventive thinkers** to produce and evaluate creative resolutions
- are reflective and have an understanding of and respect for diverse social and cultural **perspectives**

# Art

**G1**

Paper	Duration	Description	Weighting
1 Visual Response	1hr 30 min	Section A (5m): Fill in the blank, MCQ and Matching questions, Section B (20m): Short Answer questions Section C (20m): Short Art Task	40%
2 Portfolio	18 hours within 8 weeks	Part A: Visual Materials (35m) 10 screens comprising research, drawing, documentation and journal Part B: Art Works (25m) 2 Art work on different media	60%

**G3**

Paper	Duration	Description	Weighting
1 Visual Response	2hr 15 min	Section A (10m): Visual Analysis Section B (40m): Exploratory Sketching	50%
2 Portfolio (Artwork + Write up)	30 hours within 12 weeks	Part A: Visual Materials (30m) Maximum 15 screens. Students must explore > 3 artforms & media. Part B: Commentary (20m) Articulation of personal artistic growth based on 3 works (500-800words)	50%



# Design & Technology

**G1**

- engaging students in **designing and prototyping** ideas
- leveraging and building on students' experiences and **creating possibilities** to make life better.
- cultivating **creative, critical and reflective thinking** through the design process

Paper	Duration	Assessment Domains			Total
		A Knowledge with Understanding	B Design Thinking Skills	C Design Manipulating Skills	
1 Written Examination	1 hour	10%	10%	10%	30%
2 Design Project	20 weeks	20%	20%	30%	70%

**G3**

Paper	Duration	Assessment Domains			Total
		A Knowledge with Understanding	B Design Thinking Skills	C Design Manipulating Skills	
1 Written Examination	2 hours	25%	10%	5%	40%
2 Design Project	22 weeks	15%	20%	25%	60%



# Design & Technology

## Written Exam (P1)

- The questions are design-centric.
- Knowledge application of **Design**
- Knowledge application of **Technology**

### G1 Topics

Mechanisms

Electronics

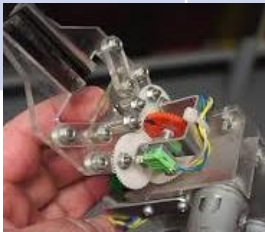


### G3 Topics

Mechanisms

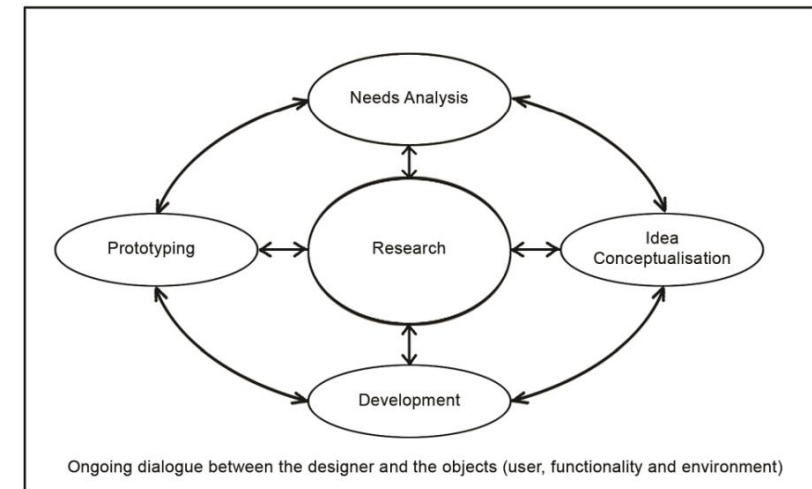
Electronics

Structures



## Design Project (P2)

Identify a design opportunity, initiate a design idea, developing the idea into a prototype to arrive a design solution.



# Nutrition & Food Science

Provide students with:

- understanding of concepts in **nutrition and health**
- **food literacy** and principles of **food science**
- exposure to authentic real-world contexts through hands on practical and coursework

Strands	Topics
Nutrition and Health	Nutrients Diet and Health
Food Literacy	Food management Smart Consumer
Food Science	Science in food preparation Reactions in food during preparation and cooking Sensory evaluation of food



# Nutrition & Food Science

G1

Paper	Duration	Description	Weighting
1 Written Paper	1.5 hr	Section A: MCQ (16m) Section B: Short answer questions (32m) Section C: Structured questions (32m)	40%
2 Coursework	35 hr Jan - July	25 – 35 ppt slides with video recording (60m) Background study, Decision making, Exploration, Planning, Execution, Evaluation	60%

G3

Paper	Duration	Description	Weighting
1 Written Paper	2 hr	Section A: MCQ (15m) Section B: Short answer and data response questions (55m) Section C: 2 Open ended questions (30m)	40%
2 Coursework	28 hr Jan - July	20 – 25 page report (80m) Research, Decision making, Investigation, Planning, Execution and Evaluation	60%

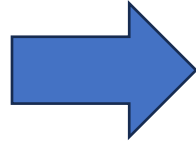




# Music

## Core Music Skills

- (i) Listening
- (ii) Performing
- (iii) Creating



## Through

- Different genres of music (Western Music, Traditional Music, Film Music and Popular Music from 2000s)
- Hands-on music making
- Use of music technology

The processes of mastering musical skills, creating musical works and preparing for performances help foster **creativity and innovate** and develop **confidence, resilience and problem-solving skills.**



# Music

Paper	Duration	Description	Weighting
1 Listening (Theory)	1 hr	Section A: MCQ (20m) Section B: Short structured questions (20m)	40%
2 Coursework	30 hr Mar- July	<b>Task 1</b> Create a 1 – 2 min song arrangement in any genres in the syllabus (20m) Perform one live (20m) <b>Task 2</b> Create an original 30second instrumental music cue to a given film (16m) Write a supporting note to explain your music (4m)	60%





# Reality



These subjects offer valuable skillsets and essential 21<sup>st</sup> century competences that are relevant in tertiary institutions and for the future workplace.



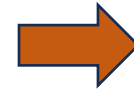
There is academic rigour and content. All coursework subjects have written/theory based assessments.



Aptitude will help, but attitude, consistent effort and interest in the subject are more important and critical.

# What to consider in your subject selection...

- 1) Demonstration of ability and competence in lower sec
- 2) Have keen interest and enjoy the subject
- 3) Prefer hands on and learning in practical ways
- 4) Post secondary education and / or career pathways



Grade Descriptors (with abbreviations)	Mark Range
Proficient (PF)	70-100
Competent (CP)	60-69
Developing (DV)	50-59
Beginning (BG)	<50



# Mathematics and Additional Mathematics

Mdm Lam Chen Peng, HOD Mathematics



# Importance of Mathematics

- develops **logical thinking** skills and **problem solving** skills
- provides platform to also develop **presentation** and **organisation** skills



# Difference Between Maths and Additional Maths

	Mathematics	Additional Mathematics
<b>Syllabus</b>	<ol style="list-style-type: none"><li>1. Number &amp; Algebra</li><li>2. Geometry &amp; Measurement</li><li>3. Statistics &amp; Probability</li></ol>	<ol style="list-style-type: none"><li>1. Algebra</li><li>2. Geometry &amp; Trigonometry</li><li>3. Calculus</li></ol>

Additional Maths covers:

- more abstract concepts
- more complex procedural skills and manipulation



# Additional Maths

## Aims

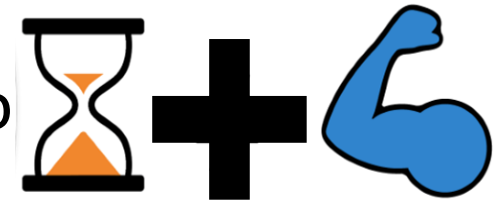
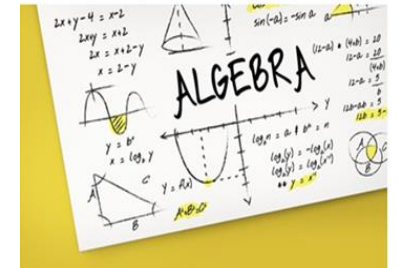
- Prepare students adequately in **concepts and skills** for higher studies in Mathematics
- Develop **thinking, reasoning, communication, application and metacognitive skills** through a mathematical approach to problem solving
- Appreciate the abstract nature and power of mathematics



# Additional Maths

## Requires

- **Interest** in Maths
- **Aptitude** in Maths (especially **Algebra**)
- Strong foundation in algebraic manipulation skills and mathematical reasoning skills
- A good **attitude** (determination, commitment, willingness to put in hard work & have perseverance)



# Implications on Post Secondary Options

## Mathematics

- Most polytechnic courses require a grade of C6 or better.
- For the Polytechnic Foundation Programme, a G2 Maths grade of 3 or above is needed.

## Additional Mathematics

**Builds a strong foundation for further study in:**

- H2 Mathematics at **A levels**
- Maths modules in the **STEM-related courses** in polytechnics (e.g. aerospace engineering, computer science, finance)





# Assessment Format for Additional Mathematics

## G3 Additional Mathematics (Code – 4049)

Paper	Duration	Description	Marks/ Weightings
1	2 h 15 min	There will be 12 – 14 questions of varying marks and lengths, up to 10 marks per question.	90 marks 50%
2	2 h 15 min	There will be 9 – 11 questions of varying marks and lengths, up to 12 marks per question.	90 marks 50%

## G2 Additional Mathematics (Code – 4051)

Paper	Duration	Description	Marks/ Weightings
1	1 h 45 min	There will be 13 – 15 questions of varying marks and lengths.	70 marks 50%
2	1 h 45 min	There will be 8 – 10 questions of varying marks and lengths.	70 marks 50%



# Eligibility criteria for G3 & G2 Additional Maths

## Additional Mathematics

- At least 70% in the overall in Mathematics, and
- At least 70% in the Algebra component in the End-of-Year Mathematics Examination



# Humanities

Mrs Keh Shu Fen , HOD Humanities



# Humanities in Upper Secondary

<b>G3/G2 Humanities (SS, __)</b> <b>Compulsory</b>	<b>G3 Humanities (Full)</b> <b>Optional</b>
Social Studies & Geography or Social Studies & History or Social Studies & Literature	Geography
	History
	Literature



# Humanities (Social Studies & \_\_)

G3

G2

50%	50%		
Paper 1	Paper 2		
Social Studies	Humanities Geography	Humanities History	Humanities Literature
<b>Source-based Case Study 35%</b>  <b>Structured-Response Questions 15%</b>	<b>Section A 32%</b> <i>Geography in Everyday Life &amp; Tourism</i>  <b>Section B 18%</b> <i>Climate</i>	<b>Source-based Case Study 30%</b>  <b>Essay Questions 20%</b> <i>2 of 3 questions</i>	<b>Prose 25%</b> <i>choice of 3 questions on set text</i>  <b>Unseen Poetry 25%</b> <i>choice between 2 poems</i>



# Humanities (SS, Geography)

## TOPICS

### 1. Geography in Everyday Life

- *e.g. sustainable development*

### 2. Climate

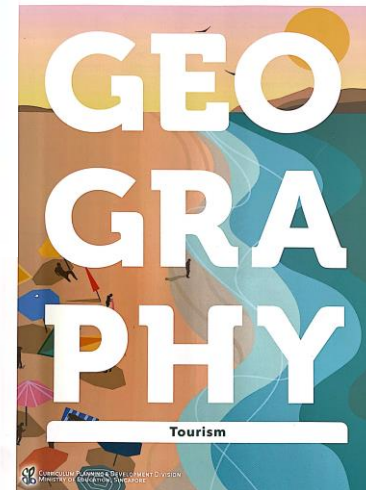
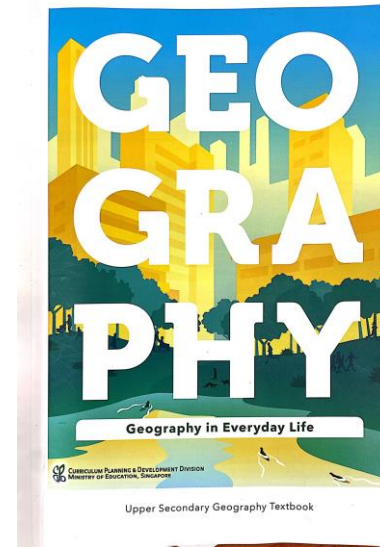
- *e.g. causes & impacts of climate change*

### 3. Tourism (FOR G3 ONLY)

- *e.g. positive & negative impacts of tourism*

## SKILLS

- Analysing & interpreting geographical data to recognize patterns & trends
- Applying geographical concepts & methods to investigate natural, human phenomena & processes



# Geography

## TOPICS

### 1. Geography in Everyday Life

*e.g. sustainable development*

### 2. Climate

*e.g. causes & impacts of climate change*

### 3. Tourism (FOR G3 ONLY)

*e.g. positive & negative impacts of tourism*

### 4. Singapore

*e.g. small island city-state, sustainable & resilient  
Singapore*

### 5. Tectonics

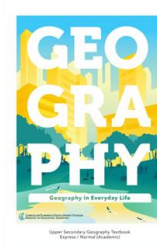
*e.g. earthquakes, volcanic eruption*

### \* Extended fieldwork

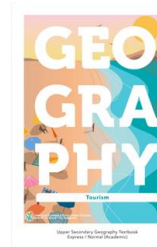
## SKILLS

Analysing & interpreting geographical data to recognize patterns & trends

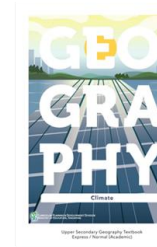
Applying geographical concepts & methods to investigate natural, human phenomena & processes



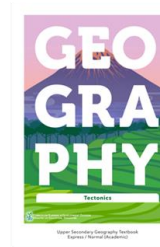
Geography in  
Everyday  
Life



Tourism



Climate



Tectonics



Singapore



# Humanities (SS, Geography)

## G2: Paper 2 (50%)

### Section A (25%)

Geography in Everyday Life  
( Bite-size fieldwork)

### Section B (25%)

Climate

## G3: Paper 2 (50%)

### Section A (32%)

Geography in Everyday Life  
( Bite-size fieldwork)  
Tourism

### Section B (18%)

Climate





# Geography

## **Paper 1: Structured Questions (50%)**

Geography in Everyday Life (Extended Fieldwork)

Tourism

Climate

## **Paper 2: Structured Questions (50%)**

Geography in Everyday Life

Tectonics

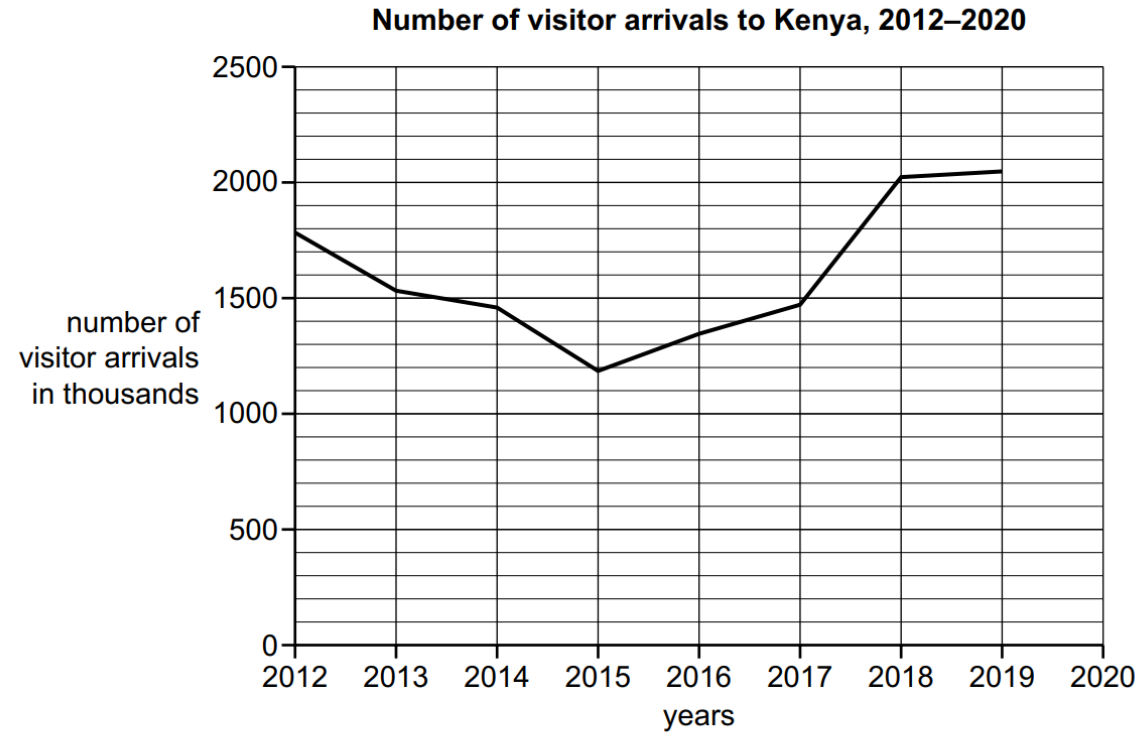
Singapore



# Structured question

(i) Using Table 2.1, complete the line graph (Fig. 2.1) for visitor arrivals in 2020.

[1]



**Fig. 2.1**

(ii) Describe the trend of visitor arrivals to Kenya between 2012 and 2020.

.....

.....

.....

.....

# Essay question

- (c) 'Some strategies for building community resilience to the threat of earthquakes are more effective than others.'

To what extent do you agree with this statement? Explain your answer.

.....

.....

.....

.....

.....

.....

.....

.....

.....



# Fieldwork question

Answer **all** questions.

## 1 Cluster 1: Geography in Everyday Life

A group of students investigated the experience of visitors at the Gallop Extension in the Singapore Botanic Gardens. The Gallop Extension is an eight-hectare area with many features which aim to bring nature closer to visitors while educating them on Singapore's forest ecosystems and conservation efforts.

Study Fig 1.1 (Insert), which shows a map of the Gallop Extension in the Singapore Botanic Gardens.

- (a) The students designed a closed-ended questionnaire to test the hypothesis: 'Knowledge about the features of the Gallop Extension increases as the length of visit to that part of the Gardens increases'.
- (i) With reference to Fig. 1.1, explain how the students could sample visitors to collect the data needed to test their hypothesis.

.....

.....

.....

.....



# Humanities (SS, History)

G3

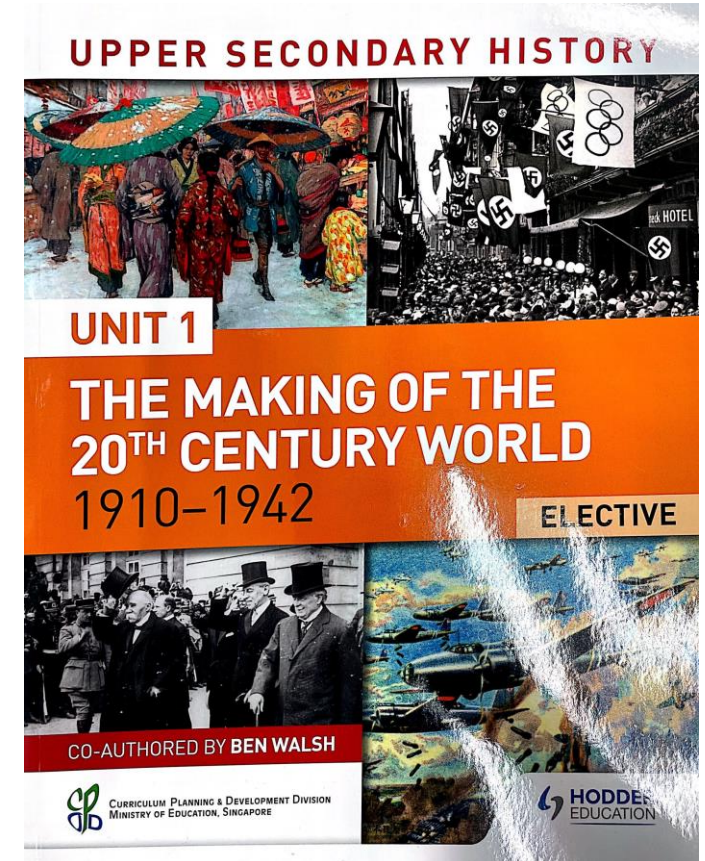
G2

## TOPICS (1910s – 1991)

- After World War 1
- Rise of Authoritarian Regimes
- War in Europe & Asia Pacific
- The Cold War
  - *e.g. Korean War & Vietnam War*
- End of the Cold War

## SKILLS

- Using, interpreting, evaluating a range of sources in their historical contexts
- Constructing explanations & communicating historical knowledge



# History

## TOPICS (Europe, 1870s – 1991)

After World War 1

Rise of Authoritarian Regimes

War in Europe & Asia Pacific

The Cold War

*e.g. Korean War & Vietnam War*

End of the Cold War

## SKILLS

Using, interpreting, evaluating a range of sources in their historical contexts

Constructing explanations & communicating historical knowledge

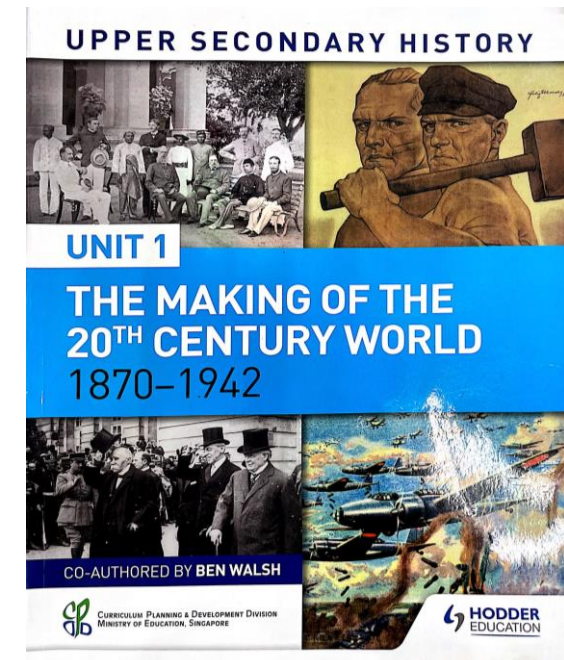
## TOPICS (Southeast Asia, 1870s – 1991)

Extension of British rule in Malaya

Extension of French rule in Vietnam

Decolonisation & establishment of newly independent states

- Malaya
- Vietnam





# Humanities (SS,History)

## Paper 2 (50%) Unit 1 & Unit 2 (1900s –1991)

**Section A 30%**  
Source-based Case Study

**Section B 20%**  
Essay Questions  
*2 out of 3 questions*



# History

## **Paper 1: 50%    Unit 1 (1870s –1945)**

Source-based Case Study 30%

Essay Questions 20%

## **Paper 2: 50%    Unit 2 (1945 – 1991)**

Source-based Case Study 30%

Essay Questions 20%





# Source Based Case Study

## (a) Study Source A.

How useful is this source as evidence of Hitler's foreign policy ambitions? Explain your answer. [6]

**Source A:** A speech made by Hitler, addressing the German Reichstag, on 26 September 1938.

I am grateful to Mr Chamberlain for his efforts. I assure him that the German people wish only for peace.

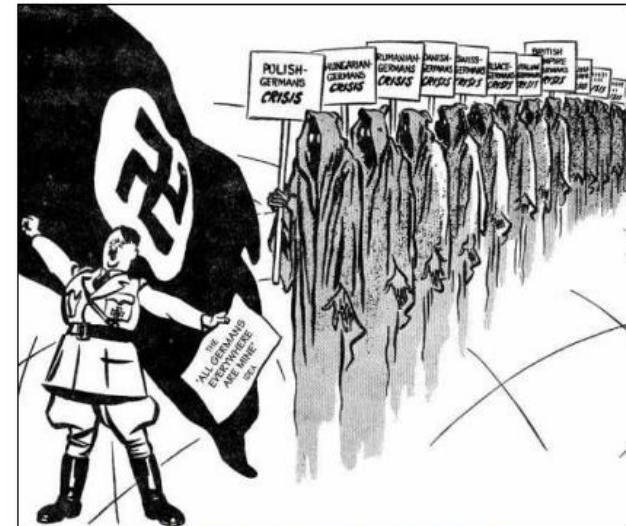
The Sudetenland is the last problem that must be solved – and it will be solved. It is the last territorial claim which I have to make in Europe. The aims of our foreign policy are not unlimited. They are based only on a determination to save the German people. In 1919 ten million Germans found themselves beyond the frontiers of Germany. Life has been a nightmare for them. Of all the groups of Germans in Europe, those in Czechoslovakia have the highest mortality rate, their child poverty rate is the highest, their unemployment is by far the highest.

For twenty years, the Germans in Czechoslovakia and in Germany had to sit back and watch because Germany was defenceless and could not protect itself in the new 'democratic' world.

## (d) Study Source E.

Do you think the cartoonist would have agreed with Chamberlain's policy of appeasement? Explain your answer. [5]

**Source E:** A cartoon published in a British newspaper, 9 September 1938. Hitler is holding a banner saying, 'All Germans everywhere are mine'.



NIGHTMARE WAITING LIST

## Section B: Essays

Answer **two** questions.

- 2 'Germans hated the Treaty of Versailles because it blamed them for starting World War I.' How far do you agree with this statement? Explain your answer. [10]
- 3 'US policy towards Japan in the 1930s was responsible for the outbreak of World War II in the Asia-Pacific.' How far do you agree with this statement? Explain your answer. [10]
- 4 'Gorbachev was responsible for the collapse of Soviet control over Eastern Europe.' How far do you agree with this statement? Explain your answer. [10]



# English Literature

Mdm Noreha, HOD English Language

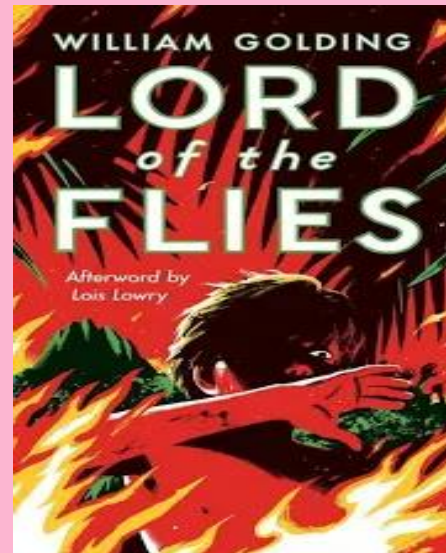


# Humanities (Literature in English)

## What We Teach

G3

### PROSE



### POETRY

#### Coffee Shop

I loved that coffee shop.  
The baristas were nice, serving my only vice.  
I loved the bitter sweet nectar, more than wise.  
Also with coffee I fancied a girl with glasses.  
She read philosophies, Sartre, Kant and Camus.

I approached with hesitant eyes, polite lies.  
She was witty, I was funny.  
She had smarts, I was dummy.  
She was out of luck, I was out of money.  
We clicked, Sparks flew, passions knew.  
We, together, Love.

I loved that coffee shop  
We had our first time there, cute kind.  
Our first kiss and also our first fight.  
Both so different and yet so alike.  
Full of emotions, crazy, haze in light.  
She was magic. Firefly in dark night.



Prathinath Bhore

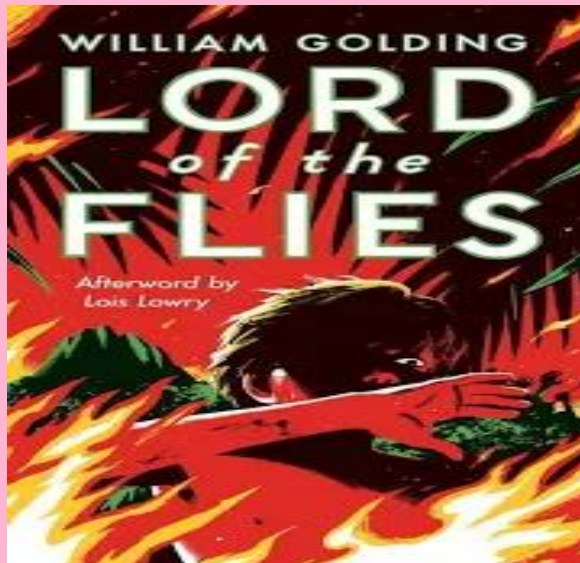
1/2

# Literature in English

## What We Teach

G3

### PROSE



### POETRY

#### Coffee Shop

I loved that coffee shop.  
The baristas were nice, serving my only vice.  
I loved the bitter sweet nectar, more than wine,  
Also with coffee I fancied a girl with glasses.  
She read philosophies, Sartre, Kant and Camus.

I approached with hesitant eyes, polite lies.  
She was witty, I was funny,  
She had smarts, I was dummy.  
She was out of luck, I was out of money.  
We clicked, Sparks flew, passions knew.  
We, together, Love.

I loved that coffee shop  
We had our first time there, cute kind.  
Our first kiss and also our first fight.  
Both so different and yet so alike.  
Full of emotions, crazy, haze in light.  
She was magic. Firefly in dark night.

Prathamash Bhore

1/2



### DRAMA



# Literature in English

## Five Areas of Study

Plot	<ul style="list-style-type: none"><li>• How writer has chosen to arrange the events in the story</li><li>• Understand <b>relationships between events/scenes</b>.</li></ul>
Character	<ul style="list-style-type: none"><li>• Study characters' <b>motivations, intellectual, moral and emotional</b> qualities to shed light on themes and <b>human nature</b>.</li></ul>
Setting & Atmosphere	<ul style="list-style-type: none"><li>• Time, place, physical details and circumstances - to understand the <b>mood</b> or <b>emotional</b> quality of the writing.</li></ul>
Style	<ul style="list-style-type: none"><li>• Understand how the writer uses <b>language</b> to achieve certain <b>effects</b>.</li></ul>
Theme	<ul style="list-style-type: none"><li>• Understand the writer's <b>views and perspectives</b> on human nature, society and human condition through their texts.</li></ul>





# Humanities (Literature in English)

G3

## How We Assess

Paper 2	Duration and Weighting	Details of Paper and Sections
Prose and Unseen Poetry	1 hr 40min [50%]	<b>Section A: Prose [25%]</b> <ul style="list-style-type: none"><li>• One passage-based question</li><li>• Two essay questions</li></ul> <p>Students will answer <u>one</u> question</p>
		<b>Section B: Unseen Poetry [25%]</b> <ul style="list-style-type: none"><li>• Two unseen poems with one question set on each poem.</li></ul> <p>Students will answer <u>one</u> of the two questions.</p>



# Literature in English

G3

<b>Paper 1 (50%)</b> <b>1h 40m</b>	<b>Paper 2 (50%)</b> <b>1h 30m</b>
<b>Section A (25%)</b> Prose	<b>Drama</b>
<b>Section B (25%)</b> Unseen Poetry	<ul style="list-style-type: none"><li>• Passage-based Question (25%)</li><li>• Essay Question (25%)</li></ul>





# Passage-Based Question - Example

Nothing more was ever heard of Bruno after that.

Several days later, after the soldiers had searched every part of the house and gone into all the local towns and villages with pictures of the little boy, one of them discovered the pile of clothes and the pair of boots that Bruno had left near the fence. He left them there, undisturbed, and went to fetch the Commandant, who examined the area and looked to his left and looked to his right just as Bruno had done, but for the life of him he could not understand what had happened to his son. It was as if he had just vanished off the face of the earth and left his clothes behind him.

Mother did not return to Berlin quite quickly as she had hoped. She stayed at Out-With for several months waiting for news of Bruno until one day, quite suddenly, she thought he might have made his way home alone, so she immediately returned to their old house, half expecting to see him sitting on the doorstep waiting for her.

He wasn't there, of course.

Gretel returned to Berlin with mother and spent a lot of time alone in her room crying, not because she had thrown her dolls away and not because she had left all her maps behind at Out-With, but because she missed Bruno so much. Father stayed at Out-With for another year after that and became very disliked by the other soldiers, whom he ordered around mercilessly. He went to sleep every night thinking about Bruno and he woke up every morning thinking about him too. One day he formed a theory about what might have occurred and he went back to the place in the fence where the pile of clothes had been found a year before.

(i) What makes this passage moving? Support your response with relevant examples from the given passage.

(ii) Making close reference to any one incident from another parts of the text, discuss your impressions of Father before Bruno's disappearance.

## Questions

## Passage from Set Text



# Science

Mdm Farhanah Samsudin, HOD Science



# What Our G1 Students have learnt in Lower Secondary Science

Laboratory Measurements and Procedures		
Machines Around Us (I)	Our Environment	Our Body and Health (I)
<ul style="list-style-type: none"><li>• Force</li><li>• Energy</li><li>• Electricity</li><li>• Heat</li></ul>	<ul style="list-style-type: none"><li>• Matter</li><li>• Water Pollution</li><li>• Air Pollution</li></ul>	<ul style="list-style-type: none"><li>• Cells</li><li>• Getting Energy and Nutrients from Food</li><li>• Human Reproduction</li><li>• Taking Good Care of My Body</li></ul>



# What Our G2 & G3 Students have learnt in Lower Secondary Science

Thematic Approach				
Scientific Endeavour	Diversity	Models	Interactions	Systems
<ul style="list-style-type: none"> <li>Exploring Diversity of Matter by Separation Techniques</li> <li>Exploring Diversity of Matter by its Chemical Composition</li> <li>Atoms and Molecules</li> <li>Particulate Nature of Matter</li> <li>Chemical Changes</li> </ul>	<ul style="list-style-type: none"> <li>The Scientific Endeavour</li> <li>Exploring Diversity of Matter by its Physical Properties</li> <li>Electrical Systems</li> <li>Application of Forces and Transfer of Energy</li> <li>Transfer of Heat Energy and its Effects</li> <li>Ray Model of Light</li> </ul>		<ul style="list-style-type: none"> <li>Models of Cells</li> <li>Transport in Organisms</li> <li>Diversity of Living Organisms</li> <li>Interactions within Ecosystems</li> <li>Human Digestive System</li> <li>Human Sexual Reproductive System</li> </ul>	
Chemistry	Physics		Biology	



# Upper Secondary Science Syllabus

## Secondary 3 and 4



# G1 Science

## **Machines Around Us (II)**

1.1 Energy

1.2 Electricity

1.3 Wave

1.4 Effects of Force II

## **Our Body and Health (II)**

3.1 Staying Healthy

3.2 Digestion

3.3 Breathing

3.4 Blood Circulation

## **Food Matters**

2.1 Sources of Food

2.2 Food Chemistry

2.3 Food Safety



## Topics for Science Chemistry

1. Experimental Chemistry
2. The Particulate Nature of Matter
3. Chemical Bonding & Structure
4. Chemical Calculations
5. Acid-Base Chemistry
6. Qualitative Analysis
7. Patterns in the Periodic Table
8. Organic Chemistry
9. Maintaining Air Quality



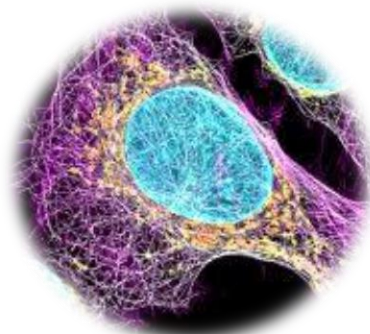
# G2 Science

## (Physics/Chemistry)

## (Chemistry/Biology)

## Topics for Science Biology

1. Cell Structure and Organization
2. Movement of Substances
3. Biological Molecules
4. Nutrition in Humans
5. Transport in Humans
6. Respiration in Humans
7. Infectious Diseases in Humans
8. Nutrition and Transport in Flowering Plants



## Topics for Science Physics

1. Physical Quantities and Units and Measurement
2. Kinematics
3. Force and Pressure
4. Dynamics
5. Energy
6. Kinetic Particle Model of Matter
7. Thermal Processes
8. General Wave Properties
9. Electromagnetic Spectrum
10. Electric Charge and Current of Electricity
11. D.C. Circuits
12. Practical Electricity
13. Radioactivity



# (Pure) Physics, Chemistry, Biology VS Science (Physics/Chemistry) or (Chemistry/Biology)

- Syllabi for Physics, Chemistry and Biology are *broader and more in-depth* as compared to Science (Phy/Chem) or (Chem/Bio)
- Greater emphasis on *data analysis, handling information and problem solving* through the application of concepts in Physics, Chemistry and Biology
- A good foundation in Mathematics would be helpful in *analysing numerical and graphical data*





# G3 Science Coverage of Topics

<b>Chemistry</b> 12 topics	<b>Science Chemistry</b> 12 topics
<b>Physics</b> 20 topics	<b>Science Physics</b> 16 topics
<b>Biology</b> 14 topics	<b>Science Biology</b> 12 topics



# Upper Secondary Science Assessment



# G1 Science Assessment

Paper	Type of Paper	Duration	Marks	Weightage
1	E-Examination comprising of multiple choice, selected response, short-answer and structured	1 h 15 min	50	50%
2	Short-answer and structured	1 h	50	50%



# G2 Science Assessment (Physics/Chemistry & Chemistry/Biology)

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice (Physics)	1 hour 15 minutes	20	20%
2	Structured (Physics)		30	30%
3	Multiple Choice (Chemistry)	1 hour 15 minutes	20	20%
4	Structured (Chemistry)		30	30%
5	Multiple Choice (Biology)	1 hour 15 minutes	20	20%
6	Structured (Biology)		30	30%



# G3 Science Assessment (Physics/Chemistry & Chemistry/Biology)

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1 hour	40	20%
2	Structured and Free Response <b>(Physics)</b>	1 hour 15 minutes	65	32.5%
3	Structured and Free Response <b>(Chemistry)</b>	1 hour 15 minutes	65	32.5%
4	Structured and Free Response <b>(Biology)</b>	1 hour 15 minutes	65	32.5%
5	Practical Test	1 hour 30 minutes	30	15%



# (Pure) Physics, Chemistry and Biology Assessment

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1 hour	40	30%
2	Structured and Free Response	1 hour 45 minutes	80	50%
3	Practical	1 hour 50 minutes	40	20%



# Post Secondary Options

## @ Institutes of Higher Learning



# Post Secondary Options (G1/G2)

## Applied & Health Sciences

- Higher Nitec in Biotechnology
- Higher Nitec in Chemical Technology

## Electronics & Info-comm Technology

- Higher Nitec in Cyber & Network Security
- Higher Nitec in Electronics Engineering
- Higher Nitec in Games Programming & Development
- Higher Nitec in IT Systems & Networks

## Engineering

- Higher Nitec in Marine Engineering
- Higher Nitec in Electrical Engineering
- Higher Nitec in Mechanical Engineering
- Higher Nitec in Robotics & Smart Systems





# Post Secondary Options (G3)

Doing (Pure) Physics, Chemistry and Biology help to *lay a strong foundation* in the subject and *prepare the students* for study of Science at *higher levels*, including:

- H2 Science at A Levels
- Science modules in the Science, Technology and Engineering-related courses in the polytechnics (e.g. applied sciences, health sciences, aerospace engineering)



# Thank you!

