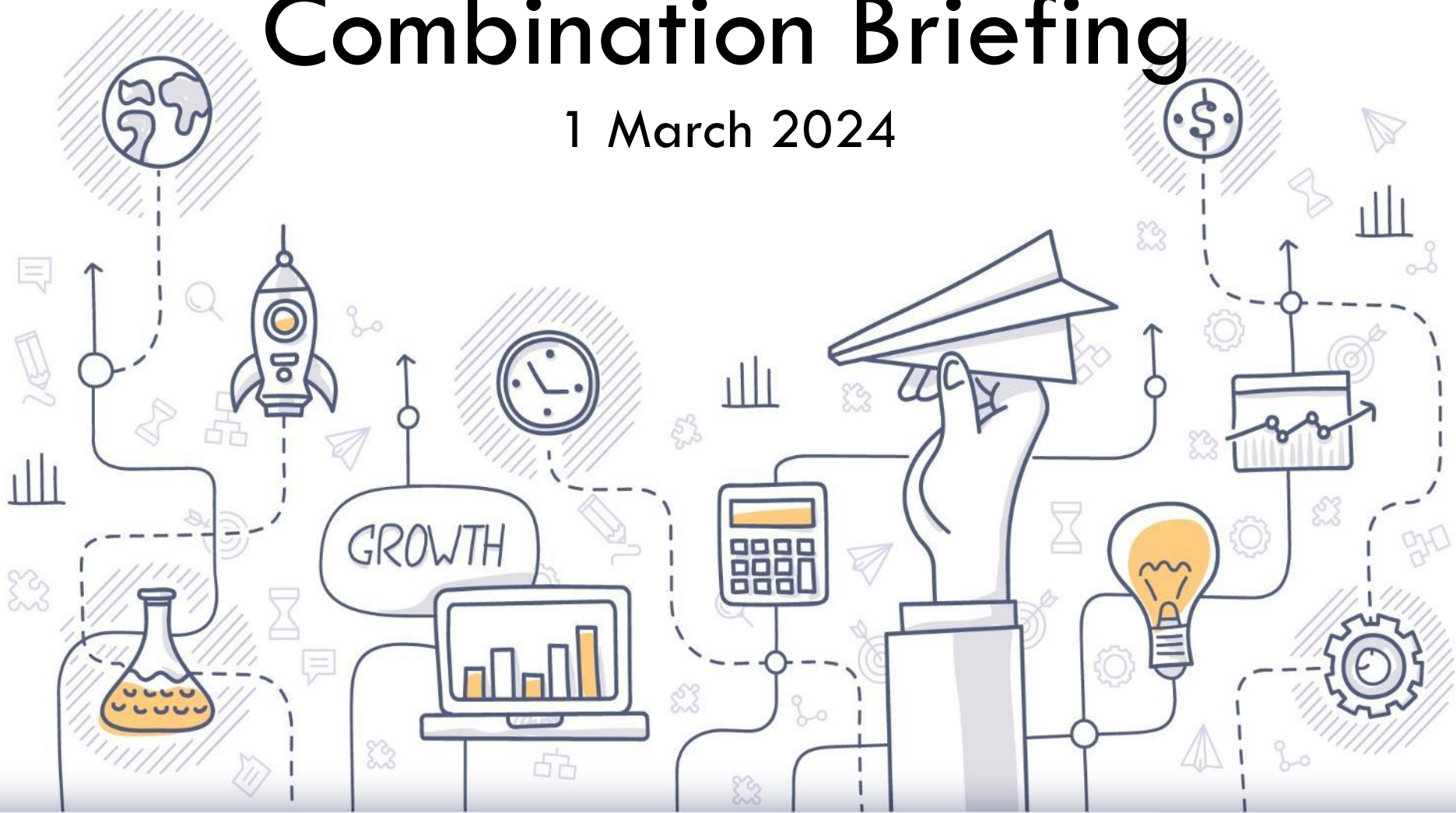
Sec 2 Express Subject Combination Briefing

1 March 2024



Overview

- Importance of choosing the right subjects
- Subject combinations offered
- Considerations when exercising choices
- Allocation process
- Preparation needed

Importance of choosing the right subjects

End of Sec 4
Affects the type of tertiary education and course of study you are eligible for

End of tertiary education
Affects the interest/ passion/ aspiration / career you wish to pursue

End of Sec 2
The subjects you choose

Middle of Sec 2
Your academic performance now!

Key Principles of Upper Secondary Subject Combinations

01

Provide a range of options to cater to student needs and interests

Enable access to multiple post-secondary pathways while ensuring manpower resource is sustainable

02

Nurture students' ownership through voice and choice

Support informed decision-making based on assessment of demonstrated strengths and identified aspirations

03

Enable each student to succeed based on his/her current and demonstrated comparative strengths

Set reasonable criteria for subjects identified to be challenging

Subject combinations offered in BMSS

- All Secondary 3 students will offer at least 5 and up to 9 secondary examinable subjects
- Express students generally take 7 subjects
- Some of these subjects/combinations are more challenging. Hence, criteria are set to enable each student to succeed based on his/her comparative strengths.

Subject combinations offered in BMSS

Category A

No	Subjects	Rationale
1	English Language	• **Caters to students with a passion for Science and Mathematics** • **Prepares students to pursue H2 Science-related courses at JC or Science-related courses at Polytechnic** • **Students need to meet the subject-specific criteria**
2	Mother Tongue / Higher Mother Tongue	
3	Mathematics	
4	Choice of combined humanities • Humanities (Social Studies, History) • Humanities (Social Studies, Geography) • Humanities (Social Studies, Literature in English)	
5	**Choice of 2 pure sciences** • Chemistry* & Physics* • Chemistry* & Biology*	
6		
7	Additional Mathematics*	

Subject-specific Criteria

Subject	Criteria (based on Sec 2 overall results)
2 pure sciences	Mathematics ≥ 70% AND Science ≥ 70% *Additional criteria for Biology*: English ≥ 65%
Additional Mathematics	Mathematics ≥ 65% AND ≥ 65% in Algebra component

* Subjects with criteria

Subject combinations offered in BMSS

Category B

No	Subjects
1	English Language
2	Mother Tongue / Higher Mother Tongue
3	Mathematics
4	Choice of combined humanities • Humanities (Social Studies, History) • Humanities (Social Studies, Geography) • Humanities (Social Studies, Literature in English)
5	**Choice of 1 pure science and 1 combined science** • Chemistry* and Sci(Physics/Biology) • Physics* and Sci(Chemistry/Biology)
6	
7	**Choice of** • Additional Mathematics* • Principles of Accounts • Core Geography*

Rationale

- **Caters to students with an interest in both Science and non-Science subjects**
- **Offers the flexibility to pursue Science-or Arts-related courses at JC or Polytechnic**
- **Prepares students to pursue H2 Science-related and Arts-related courses at JC or Science- or Business-related courses at Polytechnic**
- **Students need to meet the subject-specific criteria**

Subject-specific Criteria

Subject	Criteria (based on Sec 2 overall results)
1 pure science	Mathematics ≥ 65% AND Science ≥ 65% *Additional criteria for Biology*: English ≥ 65%
Additional Mathematics	Mathematics ≥ 65% AND ≥ 65% in Algebra component
Core Geography	Geography ≥ 70% AND pass in Sec 2 History

* Subjects with criteria

Subject combinations offered in BMSS

Category C

No	Subjects	Rationale
1	English Language	• **Caters to students who have an interest in coursework subjects and Business-related courses at Polytechnic** • **Prepares students for both Science-related and non-Science-related subjects at Polytechnic and Arts-related courses at JC#** • **Students need to meet the subject-specific criteria** **#Students can still opt for Science-related courses at JC but should be prepared to close learning gaps in Science and Mathematics**
2	Mother Tongue / Higher Mother Tongue	
3	Mathematics	
4	Choice of combined humanities • Humanities (Social Studies, History) • Humanities (Social Studies, Geography) • Humanities (Social Studies, Literature in English)	
5	**Choice of** • Sci (Physics/Chemistry) • Sci (Chemistry/Biology)	
6	**Choice of** • Design & Technology • Nutrition & Food Science	
7	**Choice of** • Principles of Accounts • Core History*	

Subject-specific Criteria

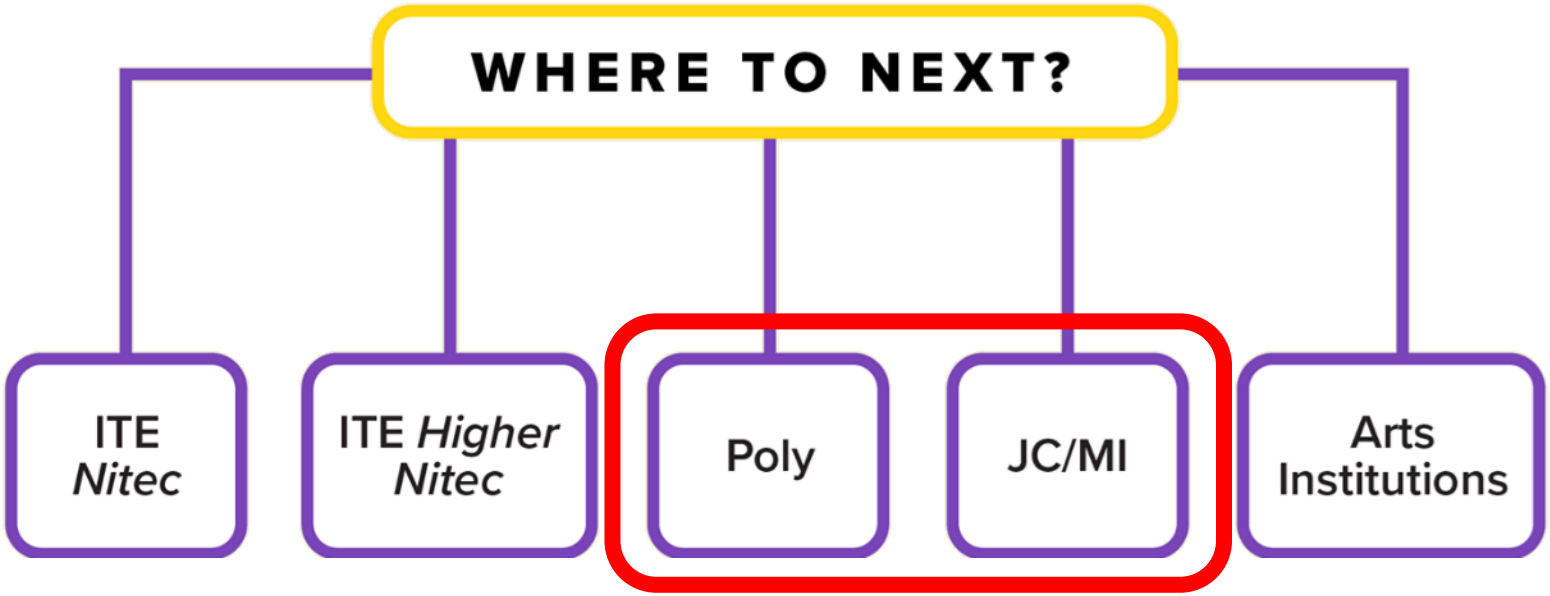
Subject	Criteria (based on Sec 2 overall results)
1 pure science	Mathematics ≥ 65% AND Science ≥ 65% *Additional criteria for Biology*: English ≥ 65%
Additional Mathematics	Mathematics ≥ 65% AND ≥ 65% in Algebra component
Core History	History≥ 70% AND pass in Sec 2 Geography

* Subjects with criteria

Consideration 1: Translating interests into demonstrated strengths & aspirations

What do you want to do in future?

Consideration 2: Desired tertiary education & course



Let us focus on these two

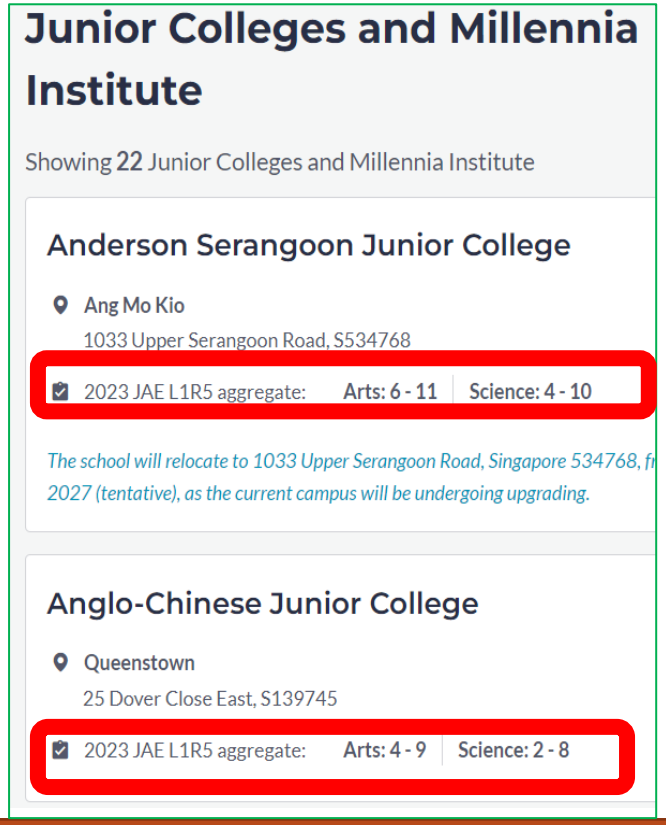
Consideration 2: Desired tertiary education & course

JAE Course Types	Aggregate Requirements		
Junior Colleges (2 Years)	English / Higher MT (L1)	**5** Relevant Subjects (R5)	6 - 20
Millennia Institute (3 Years)	English / Higher MT (L1)	**4** Relevant Subjects (R4)	5 - 20
Polytechnic	English (EL)	**2** Relevant Subjects & **2** Best Subjects (R2B2)	26 or better

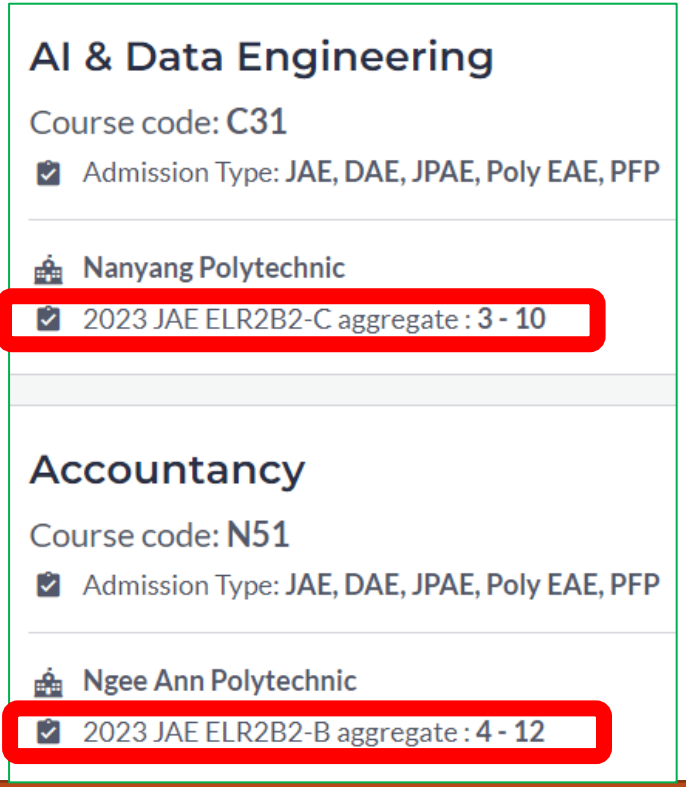
What are your abilities, strengths and weaknesses?

Consideration 2: Desired tertiary education & course

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



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



What are your abilities, strengths and weaknesses?

Consideration 2: Desired tertiary education & course

From 2024 Intake onwards, students applying for admission to the polytechnics will generally need to meet **three subject-specific Minimum Entry Requirements [MERs]**

In general, the subject-specific MERs will comprise <u>three subjects</u>*:

EL a. English Language

R2 b. Two relevant subjects drawn from the R subject list for the associated course type

** Exceptions may be made in special circumstances, especially for regulated courses with specific requirements*

What are the requirements for your desired course?

Polytechnic Course Types and MERs

Polytechnic Courses				
Course Type	**A**	**B**	**C**	**D**
Broad Nature of Courses	**Humanities or Media courses**	**Business courses**	**Engineering, Science, Facilities Management or IT courses**	**Architecture or Design courses**

Courses	Course Code	Aggregate Type	Net ELR2B2 Range for Previous (2023) JAE	Minimum Entry Requirements
Chemical & Biomolecular Engineering	N56	ELR2B2-C	8 to 12	Subject / Grade a) English Language 1-7 b) Mathematics (Elementary/Additional) 1-6 c) Any one of the following subjects: 1-6 • Biology • Biotechnology • Chemistry • Computing / Computer Studies • Design & Technology • Electronics / Fundamentals of Electronics • Physics • Science (Chemistry, Biology) • Science (Physics, Biology) • Science (Physics, Chemistry)
Environmental & Water Technology	N74	ELR2B2-C	6 to 15	

Example of MERs for a Type C course

Find out more at:
https://www.moe.gov.sg/post-secondary/admissions/jae/polytechnics

Consideration 3: Subject readiness

[Content] Combined Humanities

History	Geography	Literature in English
• Impact of World War I • Rise of authoritarian regimes – case studies of Nazi Germany and militarist Japan • World War II in Europe and the Asia–Pacific • Cold War – origin • Extension of the Cold War outside Europe – case studies of the Korean War and the Vietnam War • End of the Cold War	• Cluster 1: Geography in Everyday life • Cluster 2: Tourism • Cluster 4: Tectonics • Topographical Map Reading Skills • Geographical Data and Techniques	• Study of a novel (Prose) in the areas of Plot, Character, Theme, Mood and Atmosphere and Style. • Study of Poetry in the areas of writer's craft, style and effect. • Study of the construction of sensitive and informed personal responses.

Consideration 3: Subject readiness

[Demand] Combined Humanities

	Social Studies, History	Social Studies, Geography	Social Studies, EL Lit
Exam Format	**Paper 1 (50%, 1h 45min) - Social Studies** Section A (35m): Source-based case study Section B (15m): 1 structured-response question		
	Paper 2 (50%, 1h 50min) • **Section A** (30%) **Source-based Case Study** • **Section B** (20%) **Essay Questions** Answer 2 out of 3 questions.	**Paper 2 (50%, 1h 45min)** • **Section A** (32%) Cluster 1: Geography in Everyday Life [14m] Cluster 2: Tourism [18m] • **Section B** (18%) Cluster 4: Tectonics [18m]	**Paper 2 (50%, 1h 40 min)** • **Section A** (25%) **Prose -** Answer 1 question from a choice 1 PBQ and 2 Essay questions. • **Section B** (25%) **Unseen Poetry** - Answer 1 question from a choice of 2 Unseen poems.
JC	• Not a pre-requisite for JC subjects	• Not a pre-requisite for JC subjects	• Not a pre-requisite for JC subjects
Poly (R1/R2)	• Humanities or Media • Business		

Consideration 3: Subject readiness

[Content] Core Humanities

Core History	Core Geography
Extension of European control in Southeast Asia and challenges to European dominance, 1870s–1942 Developments in the post-World War II world: The Cold War and decolonisation in Southeast Asia, 1940s–1991	The syllabus is divided into **five clusters** of topics: 1. Geography in Everyday Life Cluster 2. Tourism Cluster 3. Climate Cluster 4. Tectonics Cluster 5. Singapore Cluster

Consideration 3: Subject readiness

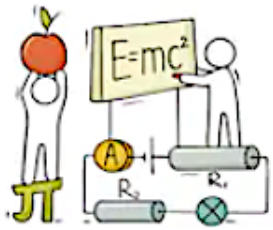
[Demand] Core Humanities

	Core History	Core Geography
Exam Format	Paper 1: Extension of European control in Southeast Asia and challenges to European dominance,1870s–1942 Section A: Source-Based Case Study (30%) Section B: Essay Questions (20%) • Answer 2 out of 3 questions set Paper 2: Developments in the post-World War II world: The Cold War and decolonisation in Southeast Asia, 1940s–1991 Section A: Source-Based Case Study (30%) Section B: Essay Questions (20%) • Answer 2 out of 3 questions set	Paper 1(50%) 3 structured questions from these clusters • Geography in Everyday Life Cluster (Fieldwork) • Tourism • Climate Paper 2 (50%) 3 structured questions from these clusters • Geography in Everyday Life Cluster • Tectonics • Singapore Students will be required to answer one 9-mark level descriptor question from each paper.
JC	• Not a pre-requisite for JC subjects	
Poly (R1/R2)	• Humanities or Media • Business	

Consideration 3: Subject readiness

[Content] Sciences

Chemistry
• Matter – Structures and Properties • Chemical Reactions • Chemistry in a Sustainable World



Physics
• Measurement • Newtonian mechanics • Thermal physics • Waves • Electricity & magnetism • Radioactivity

Biology
• Cells and The Chemistry of Life • The Human Body – Maintaining Life • Living Together – Plants, Animals and Ecosystems • Continuity of Life

Consideration 3: Subject readiness

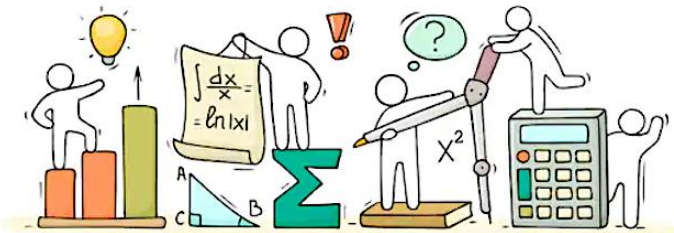
[Demand] Sciences

	Pure Science	Combined Science
Exam Format	**Paper 1 (30%, 40m, 1h)** **Multiple Choice** (40 Qn) **Paper 2 (50%, 80m, 1h 45min)** **Structured** • **Section A (70m)** include a data-based question • **Section B (10m)** (2 choose 1) **Paper 3 (20%, 40m, 1h 50min)** **Practical** (variable number of qn) Includes assessment of planning	**Paper 1 (20%, 40m, 1h)** **Multiple Choice** (40 Qn) **Paper 2/3/4 (32.5%, 65m, 1h 15min)** (one for each science) **Structured** • **Section A (55 m)** • **Section B (10 m)** (2 choose 1) **Paper 5 (15%, 30m, 1 h 30 min)** **Practical** (1 – 2 qn for each Science) Includes suggestion for modification/extension
JC	Requirement for H2 Science	Requirement for H2 Science in place of pure Science for some JCs
Poly (R1/R2)	• Engineering, Science, Facility Management or IT • Architecture or design	

*H2 Chemistry is a requirement for Medicine, Dentistry and Pharmacy in local universities

Consideration 3: Subject readiness

[Content] A Math vs POA



Additional Mathematics	Principles of Accounts

• Three strands:
  • Algebra
  • Geometry and Trigonometry
  • Calculus
 	
• Requires: Conceptual understanding, skill proficiency, reasoning, communication and connections, thinking skills and heuristics, and applications and modelling
	• Introduction to financial accounting
	• Prepare, communicate and use financial information
	• Appreciate the need for ethical conduct.
	• Develop lifelong skills and values useful in the increasingly complex world of business.
	• Develop decision-making skill in evaluating choices using both accounting and non-accounting information

Consideration 3: Subject readiness

[Demand] A Math vs POA

	Additional Mathematics	Principles of Accounts
Exam Format	**Paper 1 (50%, 90m, 2h 15min)** • 11 – 13 Qn **Paper 2 (50%, 90m, 2h 15min)** • 9 – 11 Qn	**Paper 1 (40%, 40m, 1h):** **Structured** (3 – 4 Qn) **Paper 2 (60%, 60m, 2h):** Answer 4 compulsory structured questions. • One question requires the preparation of financial statements for a business for one financial year. (20 marks) • A scenario-based question (7 marks) will be part of one of the 3 remaining questions.
JC	• May be required for H2 Math	• Not a pre-requisite for JC subjects
Poly (R1/R2)	• Humanities or Media • Business • Engineering, Science, Facility Management or IT • Architecture or design	• Humanities or Media • Business

Consideration 3: Subject readiness

[Content] Coursework Subjects

Design & Technology

- Design and prototype ideas
- Understand everyday activities and create possibilities to make life better.
- Cultivate creative, critical and reflective thinking
- Develop related dispositions and skills using graphical means and technology

Nutrition & Food Science

- Lead a healthier lifestyle proactively through proper diet and nutrition.
- Advocate sustainable food consumption by planning and making appropriate food choices.
- Apply principles of culinary science creatively in food preparation and cooking.

Consideration 3: Subject readiness

[Demand] Coursework Subjects

	Design & Technology	Nutrition & Food Science
Exam Format	**Paper 1 (40%, 80m, 2h) Written Paper** **Paper 2 (60%, 22 weeks) Coursework** • Involves design journal, mock-up(s), presentation boards and prototype	**Paper 1 (40%, 100m, 2h) Written Paper** **Paper 2 (60%, max. 28hrs) Coursework** • Involves task analysis, research & development, decision making, planning, execution and evaluation • To present in coursework folio, max. 25 pages
JC	• Not a pre-requisite for JC subjects	• Not a pre-requisite for JC subjects
Poly (R1/R2)	• Humanities or Media • Engineering, Science, Facility Management or IT • Architecture or design	• Humanities or Media • Engineering, Science, Facility Management or IT • Architecture or design

Summary

1. **Interest/passion/aspiration**
   - What do you want to do in future?

2. **Desired tertiary education & course**
   - What are your abilities, strengths and weaknesses?
   - What are the requirements for your desired course?

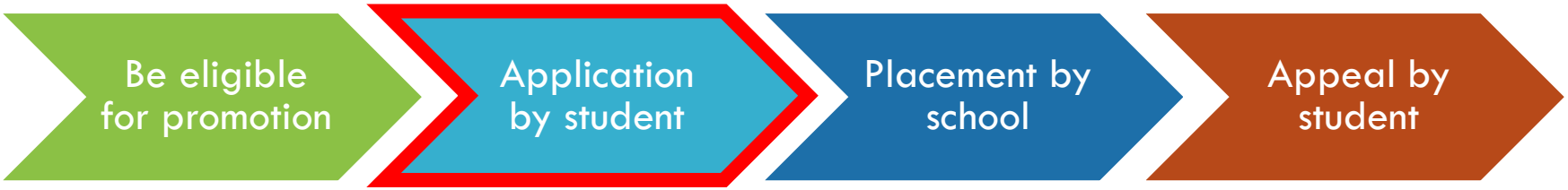
3. **Subject readiness**
   - Are you interested in the subject?
   - What are the demands for the subject?

Allocation Process

Promotion Criteria

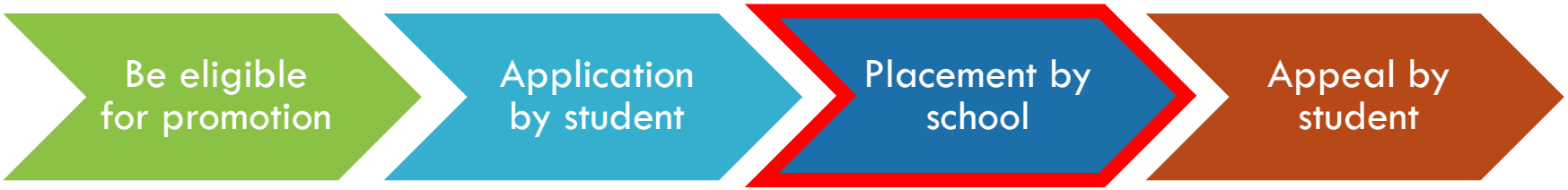
Promoted to 3E	Laterally transferred to 3N(A)
• Pass EL AND • Overall pass in average of other subjects	• Does not meet promotion criteria • **No retention in 2E**

Allocation Process



- After the End-of-Year Examinations
- A session will be conducted on how to submit your choices

Allocation Process



1. Placement is determined through
   - meeting the **minimum criteria** for certain subjects
   - **professional assessment** by your teachers, including your attitude, strengths and weakness, results and historical trends
2. Subjects which are over-subscribed will be **awarded to students based on results**
3. Subjects will only be offered if a **reasonable number of students** opted for them and there are **available resources**

Allocation Process

- Students and parents will be given 3 days to submit an appeal to the school. Appeals should be supported by good reasons.
- **The school's decision after the appeal is final.**
- **No further changes to subject combination after the appeal phase.**

Schedule of Activities

S/N	Activity	Time
1	Upper Secondary Subject Combination Briefing for students and parents//guardians	March
2	Simulation of Upper Secondary Subject Combination Application • Students submit choices online based on WA results NEW	June holidays [First Week]
3	Actual Upper Secondary Subject Combination Exercise • Briefing conducted for students after end-of-year examinations • Student submit choices online • Subject combinations allocated to students • Students submit appeals [if applicable]	Oct/ Nov

Ongoing activities:

- Students do online research and discuss with their parents/guardian. If necessary, students can make an appointment to consult ECG counsellor
- Relevant subject teachers clarify student doubts/ share more details about upper secondary elective subjects during the course of their teaching

Ways to be better prepared

1. Identify aspiration and interest early

- Find out your child's aspiration.
- Ask your child to share their experience in class!

2. Review academic performance and goals

- Identify your child's academic strengths and weaknesses.
- Guide them to set realistic goals and put in consistent effort.
- Work with our teachers.

3. Be more informed

- Research on post-secondary courses together with your child.
- Talk to our teachers, ECG counsellor, family/relatives

ECG Counselling

Make an appointment with Senior ECG Counsellor Mr Damon Choo*

- Appt Link:
  - Go.gov.sg/bmssecg
- Contact details:
  - Choo_soon_heng@schools.gov.sg
  - 8746 8303 (Whatsapp only)

*Mr Choo is physically present in BMSS every Monday, Tuesday and on some Fridays

Venue: ECG Room (Beside Block A Level 2 Staffroom)