

**SEC 3 G3/ EXPRESS  
SUBJECT SELECTION  
BRIEFING 2024**

# OBJECTIVES OF SUBJECT SELECTION BRIEFING

Combinations, Guidelines and Criteria Provided to:

- Develop students' areas of interest / strength;
- Maximise students' potential;
- Match students' aspirations with available and appropriate school resourcing.



# **SUBJECT COMBINATIONS FOR SEC 3 G3/ EXPRESS COURSE**



# CURRENT SUBJECT COMBINATIONS FOR G3/EXPRESS

Pure Science (7 subjects)	Criteria
<ol style="list-style-type: none"><li>1. English</li><li>2. Mother Tongue</li><li>3. Mathematics</li><li>4. Humanities (SS + Geo <b>or</b> SS + His <b>or</b> SS + Lit)</li><li>5. Additional Math</li><li>6. Pure Chemistry</li><li>7. Pure Physics <b>or</b> Pure Biology</li></ol>	<ul style="list-style-type: none"><li>• Students must obtain <math>\geq 70\%</math> (overall) for <b>Science</b> and <math>\geq 65\%</math> (overall) for <b>Math</b> to qualify for the Pure Science combination.</li><li>• Students in the Pure Science course will take Additional Math as a compulsory subject.</li></ul>

# CURRENT SUBJECT COMBINATIONS FOR G3/EXPRESS COURSE

## AMath + Combined Sci + Coursework (7 subjects)

1. English
2. Mother Tongue
3. Mathematics
4. Humanities (SS + Geo **or** SS + His **or** SS + Lit)
5. Combined Sci (Chem/ Phy)
6. Craft and Tech (DT **or** Art **or** Electronics **or** NFS)
7. Additional Math

## Criteria

- Students must obtain  $\geq 65\%$  (overall) for Math to qualify for Additional Math.

# CURRENT SUBJECT COMBINATIONS FOR G3/EXPRESS COURSE

Combined Science (6 subjects)	Criteria
<ol style="list-style-type: none"><li>1. English</li><li>2. Mother Tongue</li><li>3. Mathematics</li><li>4. Humanities (SS + Geo <b>or</b> SS + His <b>or</b> SS + Lit)</li><li>5. Combined Sci (Chem/ Bio) <b>or</b> (Chem/ Phy)</li><li>6. Craft and Tech (DT <b>or</b> Art <b>or</b> Electronics <b>or</b> NFS <b>or</b> EMP) <b>or</b> Additional Math</li></ol>	<ul style="list-style-type: none"><li>• Students must obtain <math>\geq 65\%</math> (overall) for <b>Math</b> to qualify for Electronics or Additional Math.</li><li>• Students must attain Grade A for Music and satisfy most of the criteria in the audition test to qualify for Enhanced Music Programme (EMP).</li></ul>

# CURRENT SUBJECT COMBINATIONS FOR G3/EXPRESS COURSE

Pure Humanities (6 subjects)	Criteria
<ol style="list-style-type: none"><li>1. English</li><li>2. Mother Tongue</li><li>3. Mathematics</li><li>4. Combined Sci (Chem/ Bio) <b>or</b> (Chem/ Phy)</li><li>5. Pure Geography</li><li>6. Humanities (SS + His/Lit)</li></ol>	<ul style="list-style-type: none"><li>• Students must attain <math>\geq 70\%</math> (<b>overall</b>) for Geography to qualify for Pure Geography.</li><li>• Pure Geography will only be offered if there is a <b>minimum number of 15 students</b> opting and are eligible for the subject.</li><li>• Students who opt for Pure Geography will have to take SS + HIS or SS + LIT as their second Humanities subject. Students need to pass overall at Sec 2 for the relevant elective chosen (History or Literature).</li></ul>

## POSSIBLE NEW SUBJECTS TO BE OFFERED FOR SEC 3 G3/EXPRESS IN 2025

- Principles of Accounts (6 subject combination)
- Principles of Accounts + A Math (7 subject combination)
- Pure Geography + A Math (7 subject combination)
- Pure Literature + A Math (7 subject combination)

The offering of these subjects will be subject to resource availability of the school and student demand for the combination.

We will be carrying out a student sentiment survey at the end of Term 2 to gauge student interest in each combination.



## Note:

1. Whether your child is given the subject combination he/she chooses will be determined by:
  - Availability of vacancies in the subject (*how many classes of this subject will be open?*)
  - Demand from students for the subject (*how many students choose this subject?*)
  - Merit / results of the student (*how well did you do compared to others?*)



# **SUBJECTS BRIEFING**



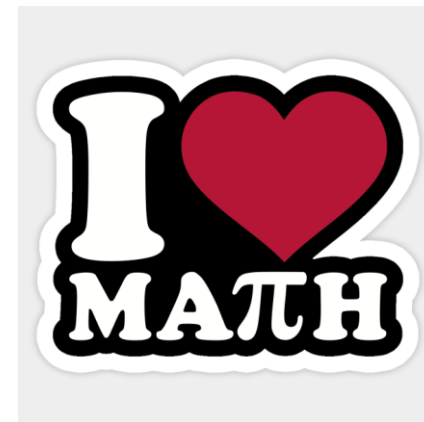
# **ADDITIONAL MATHEMATICS (A MATH)**



# THE A MATH SYLLABUS

Aims to enable students who have **higher ability in Math** and a **strong interest** to:

- ✓ Acquire **knowledge and skills** for **higher studies in Math** and support learning in **other subjects, including Science**
- ✓ Develop thinking, reasoning, communication and application in **higher level problem solving**
- ✓ Connect ideas between math and sciences
- ✓ Understand the abstract nature and **power of Math**



$\pi$   $\varphi$   $e$   
Math is not just  
solving for x  
but also figuring  
out y  
 $\int f(x)dx$

# ADVANTAGES OF OFFERING A MATH

- Additional mathematics lays a strong foundation for advanced studies in courses such as engineering, physics, computer science. Many higher education courses require a solid understanding of mathematical concepts covered in additional mathematics.

# CONSIDERATIONS

- As students will be **learning Math at a higher level**, they must be prepared to work on **more demanding problems** and exercise resilience and responsibility in completing their assignments.
- Students are expected to **invest twice the amount of time in studying Math** as the content for **EM and AM are different**, hence more time required to complete assignments.



# **O-LEVEL PRINCIPLES OF ACCOUNTS**



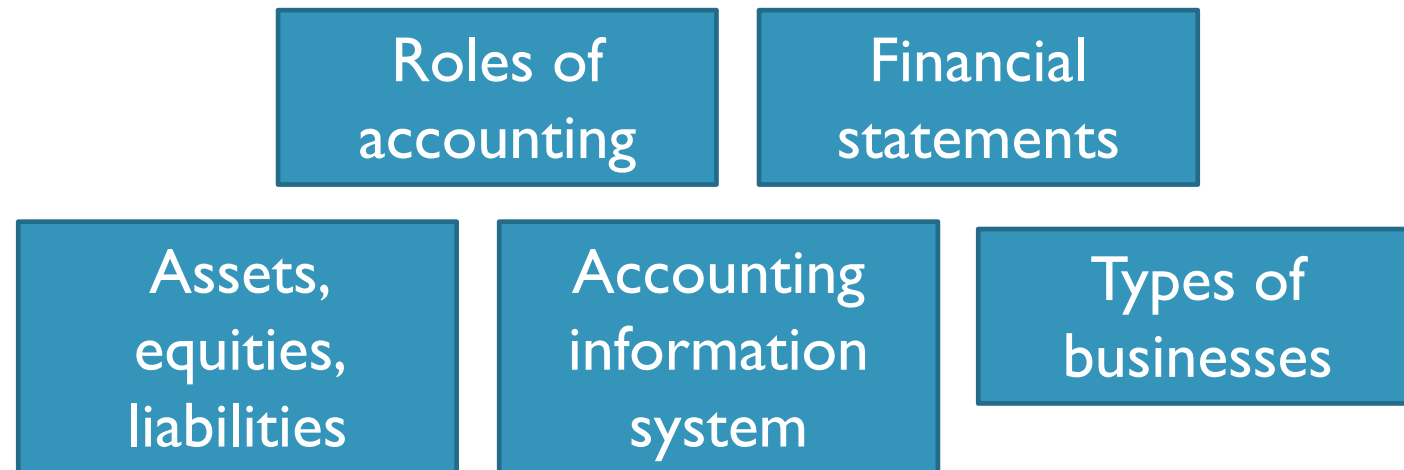
# WHAT IS O-LEVEL PRINCIPLES OF ACCOUNTS?

- Students will learn and understand:
  - what business decisions are
  - decisions are made using accounting information
  - the limitations of relying only on accounting information; and
  - the consideration of non-accounting business-related information.



# CHOOSING O-LEVEL PRINCIPLES OF ACCOUNTS

- The content of the syllabus covers :



# ASSESSMENT MODE

## **Paper 1 – Written Paper- 40% (1 hr)**

3-4 compulsory questions

## **Paper 2 – Written Paper – 60% (2 hr)**

4 compulsory 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.



**O-LEVEL ELECTRONICS**  
**(AN MOE APPLIED SUBJECT)**



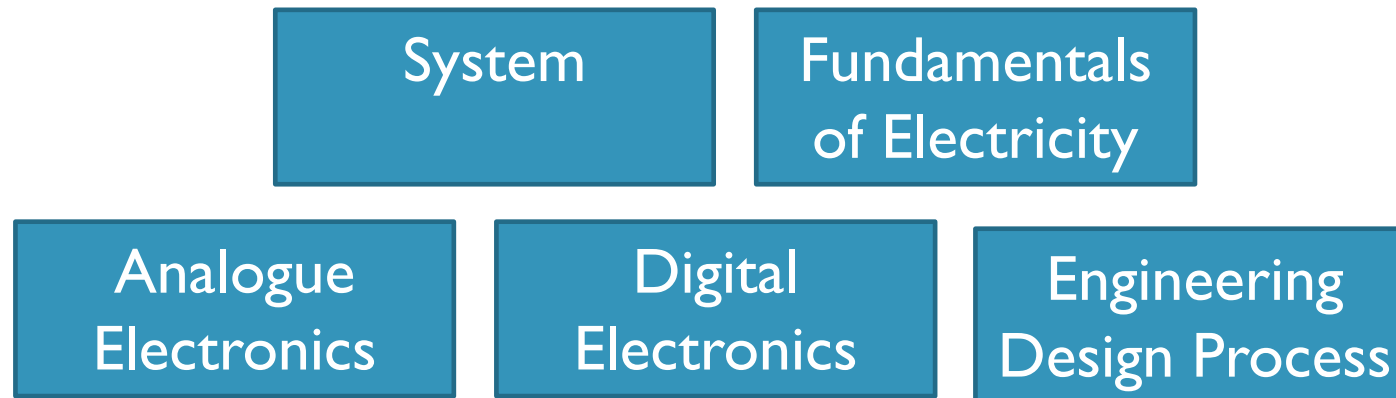
# WHAT IS O-LEVEL ELECTRONICS?

- **O-Level Electronics** is an O-level Applied Subject (AS) for upper secondary students.
- As an engineering subject, the subject involves the application of the science of electronics to solve real-world problems.

# CHOOSING O-LEVEL ELECTRONICS

Gain knowledge of electronics & build a strong foundation for further study

- The content of the syllabus covers important areas of electronics:



# ASSESSMENT MODE

## **Paper 1 – Written Paper- 70% (2 hrs)**

This written paper consists of two sections.

All questions are compulsory.

- Section A: Six to ten short answer questions
- Section B: Four 15-mark questions

## **Paper 2 – Coursework- 30%**

This is an application-specific electronic project which involves the design, building and testing of an electronic circuit to solve a specific problem.

- **Project is carried out over a period of 32 hrs in Secondary 4.**

# CERTIFICATION AND PROGRESSION

- For admission to JCs & MI:
  - Could be considered as one of the elective subjects in the computation of LIR5 (as R4 or R5) and LIR4 (as R3 or R4)
- For admission to polytechnics:
  - Depending on the polytechnic course applied for, it could be counted as a relevant subject, or at least a best subject in the computation of ELR2B2
  - Strong candidates for early admission application to polytechnic Electronics and related Engineering courses



**PURE SCIENCE/ COMBINED SCIENCE**





# PURE SCIENCE VS COMBINED SCIENCE

## JUNIOR COLLEGE

1 Pure Science subjects are generally required to qualify for H2 Science subjects at the A Levels. However, students who take combined Science can still enter JCs.

### 2 More Handling/ Problem Solving Questions

Approximately 55% of the paper has to do with handling information and problem solving

### 3 Higher Practical Weightage

Practical component takes up 20% of the overall marks

### 4 More Timetabled Time

17 periods per week for 2 Pure Science subject (5 hrs 40 mins)

## POLYTECHNIC

1 Combined Science subjects will allow students to offer Science courses at the Polytechnics

### 2 More Knowledge with Understanding/Recall questions

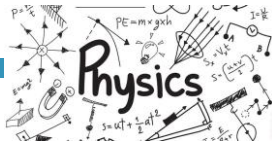
Approximately 50% of the paper is about knowledge with understanding with 20% recall questions

### 3 Lower Practical Weightage

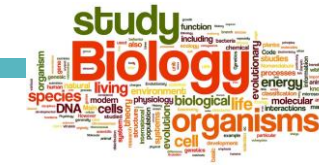
Practical component takes up 15% of the overall marks

### 4 Less Timetabled Time

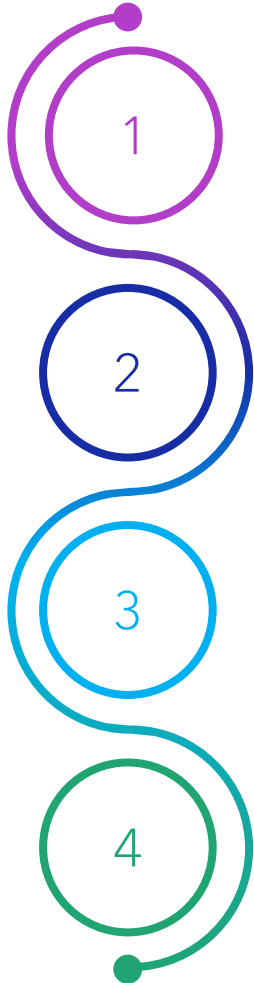
10 periods per week for combined Science (3 hrs 20 mins)



# Physics vs Biology



- Chemistry is a common Science regardless of whether students choose Pure or Combined Science, as it is a pre-requisite for most post-secondary school courses.



## Choice does not affect Post-Secondary Pathway @ Polytechnic

Choosing Physics / Biology does not affect your post-Secondary pathways – students who have not taken the Biology can still qualify for Biology related courses at the Polytechnics for example. Students may be required to take bridging courses.

## Do not choose Biology just because you do not like Physics/Mathematics

Biology requires much conceptual understanding and recall of information which may not be easier than the calculations for Physics/Mathematics

## Consider your personal interests!

Do consider the topics taught for Physics (e.g. Electricity, Waves, Kinematics, Forces) as well as Biology (Plant/Animal transport system, digestive system) to consider the ones you might be more interested in

## Consider your aptitude

Students sometimes choose one subject over the other because of their subject teachers at Sec 2. Do consider which subject you are more likely to do better at the O Levels!

## WHAT CAN I DO TO SUPPORT MY CHILD?

- Brave the future together with your child by making time to have a conversation about your child's strengths, interests and aspirations.
- Explore aspirations and course choices together by reading up on the syllabi for subjects on SEAB website ([www.seab.gov.sg](http://www.seab.gov.sg)) and also the admissions requirements and course outline for different JC/Poly/ITE courses on CourseFinder (<https://www.moe.gov.sg/coursefinder>)



*Thank you!*