



*East Spring  
Secondary School*

**East Spring Secondary School  
Sec 2**

**Meet-the-Parents Session**

**Friday, 12 May 2023**

**7.00pm – 8.30pm**

## Sec 2 MPS Programme Overview

6.45 pm – 7.00 pm	Registration / Login to Webinar
7.00 pm – 7.05 pm	Welcome & Introduction
7.05 pm – 7.35pm	School Leaders' Address
7.35 pm – 7.45 pm	General Briefing on Subject Combination
7. 45 pm – 8.00 pm	Subject Specific Briefing by IP Heads EL, MTL and Math Subject Briefing
8.00 pm – 8.15 pm	Subject Specific Briefing by IP Heads Science, Humanities & Coursework
8.15 pm – 8.30 pm	Q & A Segment
8.30 pm	Feedback / End of Webinar

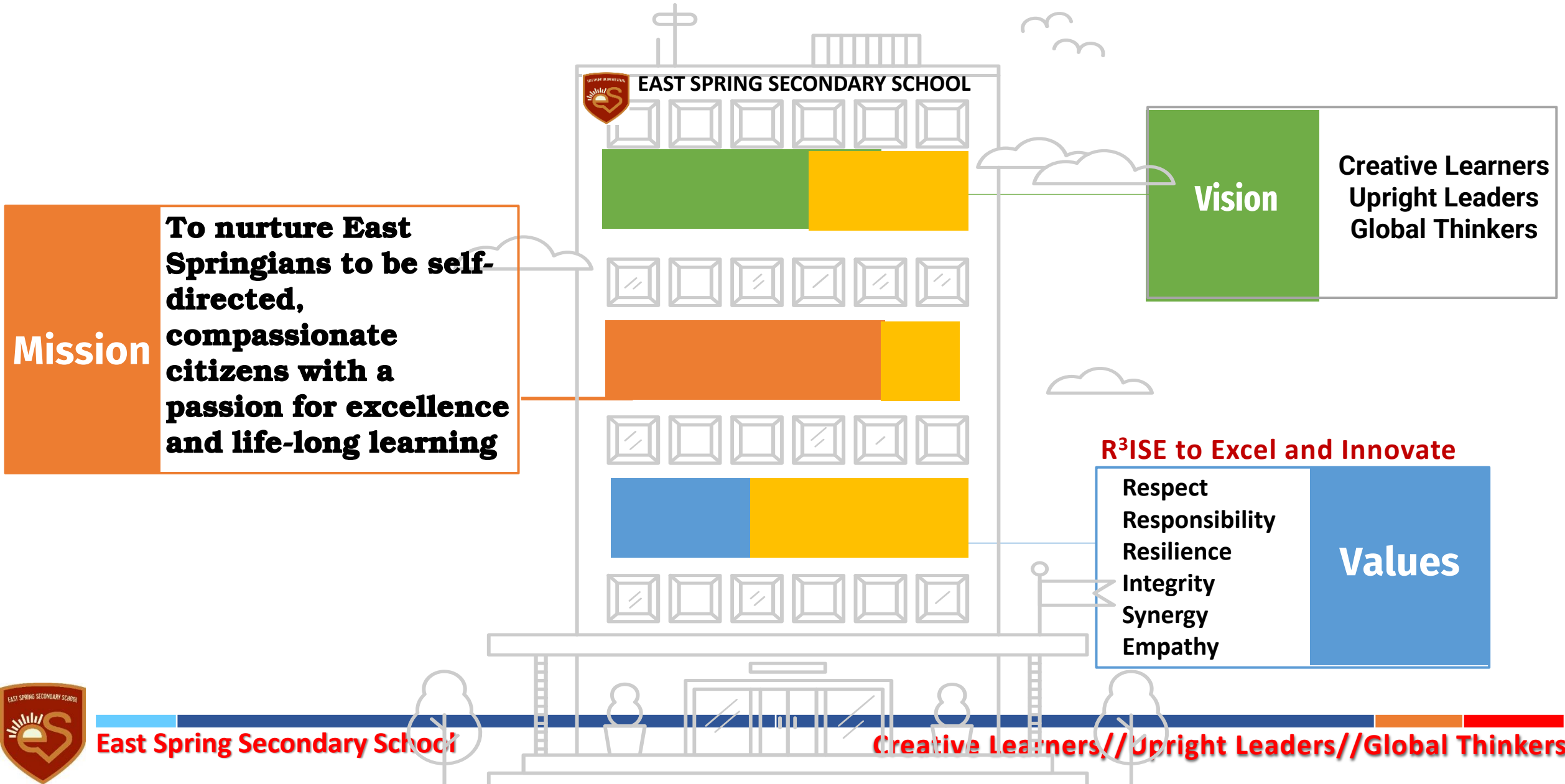


# Secondary Two Meet-the-Parents Session School Leaders' Address

12 May 2023



# East Spring Secondary School

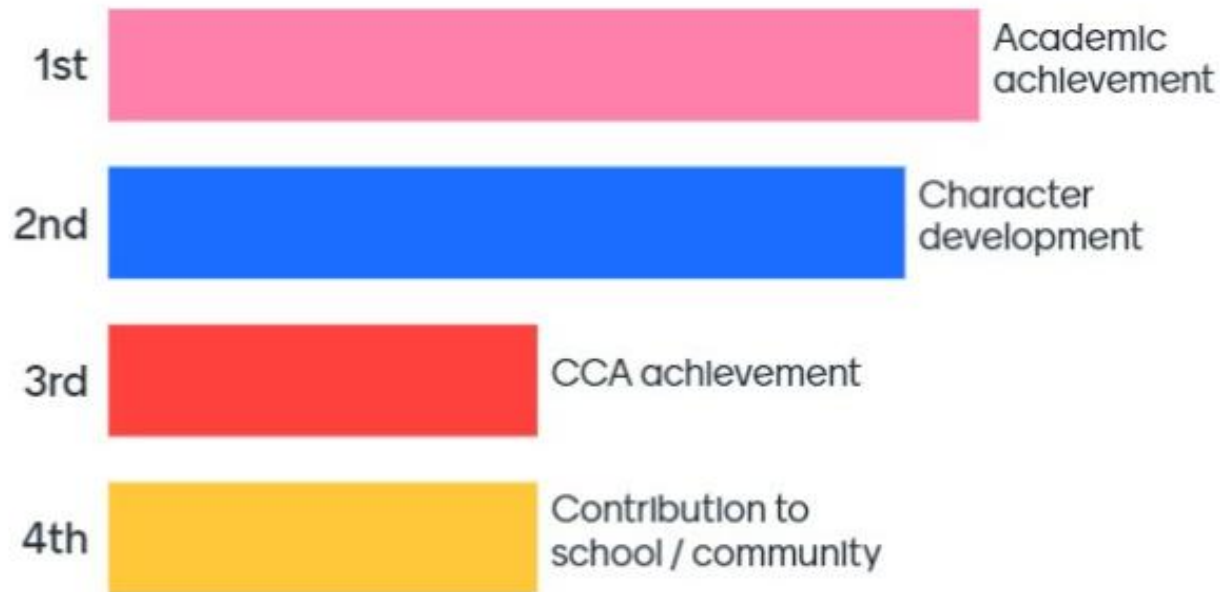




## RECAP: During Sec 1 MPS in Jan 2022, parents of this cohort did a mentimeter survey:

What is your expectation of your child in his/her time in East Spring Secondary School (ESSS)?

Ranked the 4 options in the drop-down menu in order of importance to you as a parent.





# Supporting our Students



# CHARACTER = Performance Character + Moral Character

... for success in school, work, and beyond

## PERFORMANCE COMPETENCIES

*needed to pursue excellence  
in any area of endeavor*

Ambition  
Craftsmanship  
Critical Thinking  
Dependability  
Diligence  
Drive  
Effort  
Enthusiasm  
Imagination  
Passion  
Perseverance  
Resourcefulness  
Positive Attitude  
Work Ethic  
Adaptability  
Confidence  
Creativity  
Curiosity  
Determination  
Entrepreneurship  
Endurance  
Grit  
Initiative  
Organization  
Preparedness  
Pride in Work  
Resilience  
Self-Direction  
Thrift

Wisdom  
Responsibility  
Integrity



Caring  
Courage

**MORAL COMPETENCIES** *needed for  
positive relationships, self-regulation,  
and responsible ethical behavior*

Citizenship  
Civility  
Cooperation  
Emotional Intelligence  
Empathy  
Friendliness  
Generosity  
Honesty  
Justice  
Loyalty  
Moderation  
Patience  
Respect  
Self-Control  
Truthfulness  
Compassion  
Courtesy  
Forgiveness  
Graciousness  
Gratitude  
Honor  
Humility  
Hope  
Kindness  
Love  
Mercy  
Peacefulness  
Self-Awareness  
Sensitivity  
Service  
Trustworthiness



# 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**





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, hazy orange from the setting or rising sun.

The road to success is  
through commitment.

Will Smith



# The Iceberg Illusion

Success  
is an  
iceberg

**SUCCESS!**

WHAT PEOPLE  
SEE

Persistence



Failure



Sacrifice



Disappointment



WHAT PEOPLE  
DON'T SEE

Dedication



Hard work

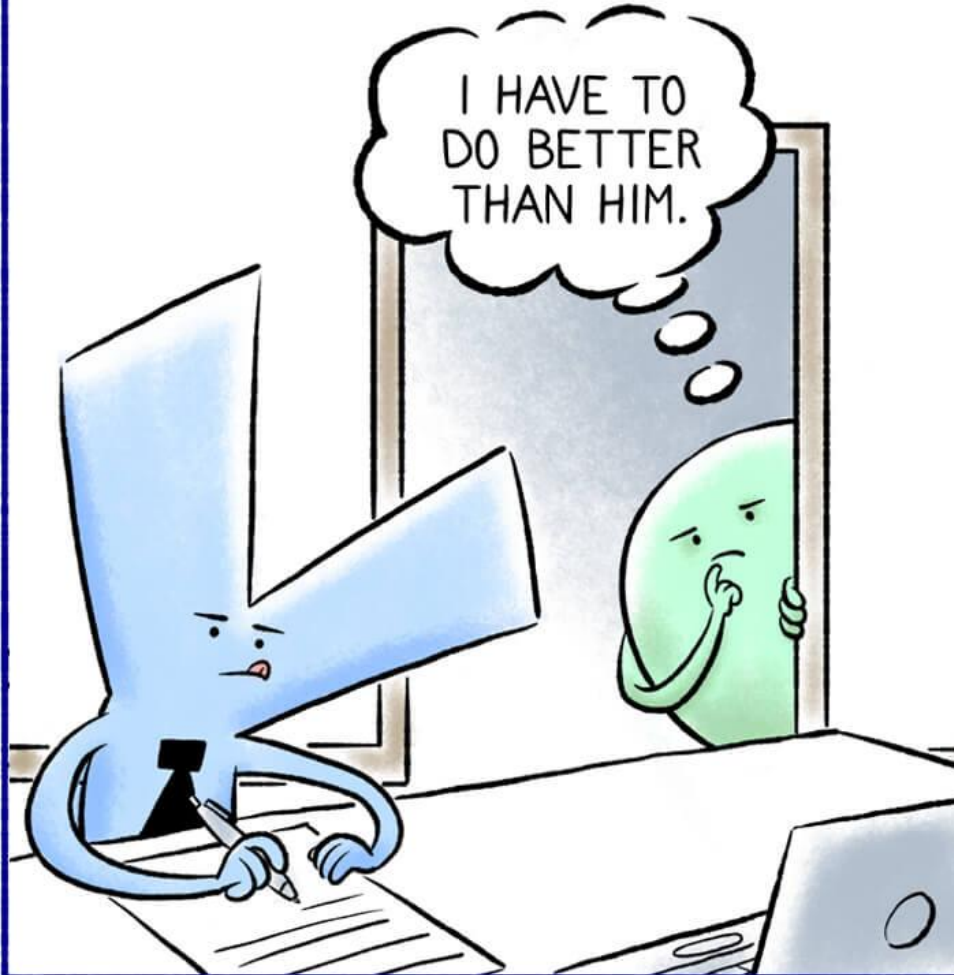


Discipline



@sylviaaduckworth

## COMPETING WITH OTHERS MAKES YOU BITTER



NEW CARTOON EVERY MONDAY

## COMPETING WITH YOURSELF MAKES YOU BETTER



JON@EVERYVOWEL.COM

EVERYVOWEL.COM



East Spring Secondary School

Creative Learners//Upright Leaders//Global Thinkers












## Information on post-secondary courses and admission requirements

Post-Secondary Options	More Info on Post-Secondary Courses	
<b>MOE Post-Secondary Education Booklet</b> – information on post-secondary options available	<b>Joint Intake Exercise (JIE) Booklet 2023</b> - applications for ITE Nitec and Higher Nitec (DPP - Direct Entry Scheme to Poly programme) courses after release of <b>N Level</b> results	<b>Joint Admissions Exercise (JAE) Booklet 2023</b> – applications to JC/MI/Poly after release of <b>O Level</b> results
		

If your child would like to speak to Education and Career Guidance Counsellor Ms Pauline Low, do inform FT or HOD CCE Mrs Jelena Phey.



# Key Pathways for Express

## Junior College (JC) / Millennia Institute (MI)

- 2-year (JC) or 3-year (MI) academic programme, leading to GCE A-Level Exams
- Eligibility Criteria:
  - ☐ JC: L1R5  $\leq$  20  
& Subject Requirements
  - ☐ MI: L1R4  $\leq$  20  
& Subject Requirements

## Polytechnic

- 3-year course in a specialised field, leading to a Diploma
- Eligibility Criteria:
  - ☐ ELR2B2  $\leq$  26
  - ☐ Course-specific requirements
  - ☐ Usually include C6 or better in English and Math

**Important Note: Eligibility does NOT guarantee you a place!**



## Aggregate Computation for JC / CI Courses

<b>L1</b>	First Language - English / Higher Mother Tongue
<b>R5</b>	Relevant Subject 1 - best of Humanities
	Relevant Subject 2 - best of Mathematics / Science
	Relevant Subject 3 - next best from Humanities / Mathematics / / Science
	Relevant Subjects 4 and 5 - from the next 2 best GCE 'O' Level subjects excluding CCA



# L1R5 Cut-off for Junior Colleges (2022)

S/N	Junior College	Arts	Science / IB	S/N	Junior College	Arts	Science / IB
1	Anderson Serangoon JC	11	10	10	National JC	8	7
2	Anglo-Chinese JC	9	8	11	Raffles Institution	5	4
3	Anglo-Chinese School (Indep)	-	5	12	River Valley High School	9	8
4	Catholic JC	13	13	13	St. Andrew's JC	11	9
5	Dunman High School	9	8	14	St. Joseph's Institution	-	7
6	Eunoia JC	8	6	15	<b>Tampines Meridian JC</b>	<b>13</b>	<b>13</b>
7	Hwa Chong Institution	5	4	16	Temasek JC	9	8
8	Jurong Pioneer JC	16	14	17	Victoria JC	8	7
9	Nanyang JC	6	5	18	Yishun Innova JC	19	19

Note: The cut-off can vary from year to year.

**EL Grade must be C6 or better, MTL & MA/AM Grade must be D7 or better**

*Source: JAE Booklet 2023  
page 108*





# Poly courses: ELR2B2 subject requirements for the 4 course types

Type	ELR2B2 – A	ELR2B2 – B	ELR2B2 – C	ELR2B2 – D
EL	<b>English (Compulsory!)</b>			
R2	<b>A.Math</b> Art Chinese/ Malay / Tamil Humanities D&T <b>Math</b> Geography History Literature Music POA	<b>A.Math or Math (Compulsory!)</b>		
		Art Humanities Geography History Literature Music POA	Biology Chemistry D&T F&N Physics Sci (Phy, Chem) Sci (Chem, Bio) Sci (Phy, Bio)	Art Biology Chemistry D&T F&N Physics Sci (Phy, Chem) Sci (Chem, Bio) Sci (Phy, Bio)
B2	Best 2 other subjects excluding CCA			



## ELR2B2 Cut-off for Some Polytechnic Courses (2022)

Course	College Campus	ELR2B2 Cut-Off
Accountancy and Finance	Temasek Poly	13
Cybersecurity and Digital Forensics	Temasek Poly	12
Pharmaceutical Science	Temasek Poly	11
Interior Architecture and Design	Temasek Poly	14
Psychology Studies	Temasek Poly	8
Common Business Programme, leading to e.g. Dip in Law and Management	Temasek Poly	15
Food Science and Nutrition	Nanyang Poly	12
Common Engineering Programme, leading to e.g. Dip in Robotics and Mechatronics	Nanyang Poly	24
Nursing	Nanyang Poly	28

Source: JAE Booklet 2023



# Key Pathways for N(A)

## 1. Poly Foundation Programme

### Eligibility Criteria:

- ☐ ELMAB3  $\leq$  **12** (before CCA Bonus Points)
- ☐ Met course-specific entry requirements (E.g EL Grade 2 or better for selected courses)

*(Note: Eligibility does not guarantee you a place in a PFP course)*



## 2. Direct Entry Scheme Poly Programme

- 2 year Higher Nitec programme at ITE, and a 10 week preparatory course
- Eligibility Criteria:
  - ☐ ELMAB3 <= **19** (before CCA Bonus Points)
  - ☐ Met course-specific entry requirements

*(Note: Eligibility does not guarantee you a place in a DPP Higher Nitec course)*





# 3. GCE O-Level via Secondary 5

## ➤ Eligibility Criteria:

- ☐ ELMAB3  $\leq$  **19** (before CCA Bonus Points)
- ☐ English, Math and Best 3 Subjects  $\leq$  5



# Key Pathways for N(T)

## ITE HIGHER NITEC

- 3 year course, leading to a Certification in a specialised field
- Phased implementation from 2022, with 8 full-time courses offered in the first year (e.g. Accounting, IT Systems & Networks)
- Eligibility Criteria:
  - ❑ Course-specific requirements, usually based on **Best 4 Subjects**

## ITE NITEC

- 2 year course, leading to a Certification in a specialised field
- More than 90 full-time courses offered
- Eligibility Criteria:
  - ❑ Course-specific requirements, usually based on **Best 4 Subjects**

**Important Note: Eligibility does NOT guarantee you a place!**



## Cut-off for ITE 2 –year Nitec Courses (2022)

Course	College Campus	Cut-Off*
Applied Food Science	ITE College East	8
Business Services	ITE College East	11
Chemical Process Technology	ITE College East	12
Electrical Technology (Lighting & Sound)	ITE College East	16
Community Care & Social Services	ITE College East	17
Nursing	ITE College East	15
Opticianry	ITE College East	14
Video Production	ITE College Central	9
Digital Animation	ITE College Central	8

**\*Based on best 4 subjects**

**Note: Also need to check subject prerequisites, e.g. pass in EL, Maths. Source: JIE Booklet 2023**





# Subject Selection Exercise





# Objective of Subject Selection Exercise @ ESSS

- ❑ To develop every East Springian to his/her full potential by catering to his/her individual
  - (i) strengths,**
  - (ii) interests and**
  - (iii) aspirations.**



# Broad-Based to Strength-Based Education



## Lower Secondary

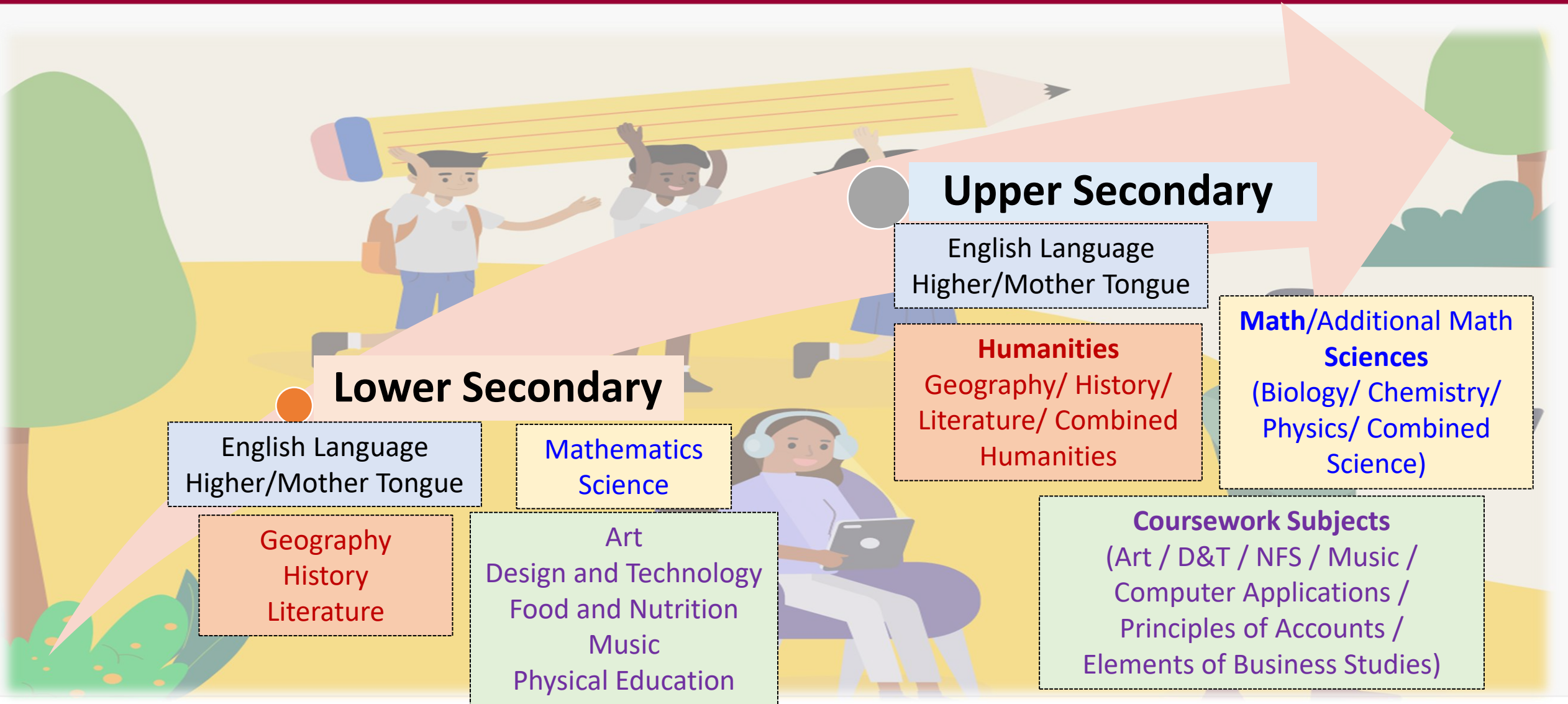
- Build strong foundations
- Wide range of learning experiences to:
  - ✓ Uncover your *talent* and *strengths*
  - ✓ Discover your *passion*

## Upper Secondary

- Allow choice & flexibility to:
  - ✓ Cater to student aptitude & interest
  - ✓ Prepare for post-secondary education
- Continue to build strong foundations in core subjects

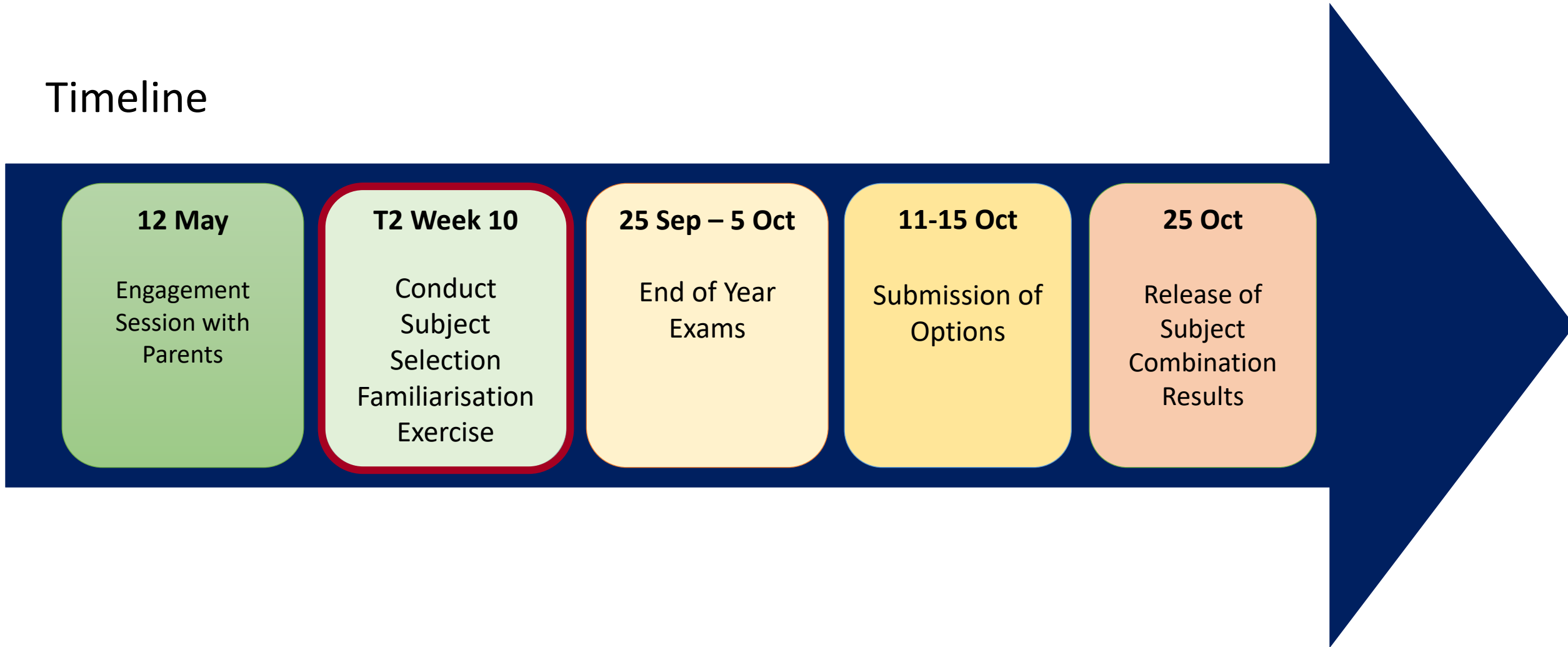


# Broad-Based to Strength-Based Education



# Subject Selection Exercise

## Timeline



# Subject Options and Combinations for the Familiarisation Exercise



# Number of subjects offered for each course

Normal Technical	Normal Academic	Express
6	6	7 or 8





# Sec 3 Normal Course 2024 Subject Combinations

## Sec 3 Normal Technical

<b>5 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Science	✓
	Computer Applications	✓
<b>1 Option Subject</b>	Design & Technology (D & T)	Choose <b><u>1 out of 4</u></b> subjects
	Food Studies	
	Art	
	Elements of Business Skills (EBS)	

## Sec 3 Normal Academic

<b>3 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
<b>1 Science Subject</b>	Science (Physics/Chemistry)	Choose <b><u>1 out of 2</u></b> subjects
	Science (Biology/Chemistry)	
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <b><u>1 out of 3</u></b> subjects
	Social Studies & History	
	Social Studies & Literature	
<b>1 Option Subject</b>	Art (Express)	Choose <b><u>1 out of 5</u></b> subjects
	Design & Technology (D & T) (Express)	
	Nutrition and Food Science (Express)	
	Additional Mathematics	
	Principles of Accounts (POA)	



# Sec 3 Express Course 2024 Subject Combinations

Triple Science/Double Humanities Combination (8 Subjects)		
<b>6 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Additional Mathematics	✓
	Chemistry	✓
	Physics	✓
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <b><u>1 out of 3</u></b> subjects
	Social Studies & History	
	Social Studies & Literature	
<b>1 Option Subject</b>	Biology	Choose <b><u>1 out of 4</u></b> subjects
	History	
	Geography	
	Literature	

Double Science Combination (7 Subjects)		
<b>5 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Additional Mathematics	✓
	Chemistry	✓
	Physics	Choose <b><u>1 out of 2</u></b> subjects
<b>1 Science Subject</b>	Biology	
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <b><u>1 out of 3</u></b> subjects
	Social Studies & History	
	Social Studies & Literature	



# Sec 3 Express Course 2024 Subject Combinations

## Combined Science with A Math (7 subjects)

<b>4 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Additional Mathematics	✓
<b>1 Science Subject</b>	Science (Physics/Chemistry)	Choose <u>1 out of 2</u> subjects
	Science (Biology/Chemistry)	
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <u>1 out of 3</u> subjects
	Social Studies & History	
	Social Studies & Literature	
<b>1 Option Subject</b>	Art	Choose <u>1 out of 6</u> subjects
	Design & Technology	
	Nutrition and Food Science	
	History	
	Geography	
	Literature	

## Combined Science with POA (7 subjects)

<b>4 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Principles of Accounts (POA)	✓
<b>1 Science Subject</b>	Science (Physics/Chemistry)	Choose <u>1 out of 2</u> subjects
	Science (Biology/Chemistry)	
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <u>1 out of 3</u> subjects
	Social Studies & History	
	Social Studies & Literature	
<b>1 Option Subject</b>	Art	Choose <u>1 out of 6</u> subjects
	Design & Technology (D & T)	
	Nutrition and Food Science	
	History	
	Geography	
	Literature	



# 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 by Heads of Department (EL, MTL, Maths)



# English Language

Mr Shaiful, HOD English Language



# Assessment Format

## (O/NA Level Syllabus 2020)

### **Paper 1: Writing**

(70 marks, 1 hour 50 minutes)

Section A: Grammar Editing (10 marks)

Section B: Situational Writing (30 marks)

Section C: Continuous Writing (30 marks)

### **Paper 2: Reading Comprehension**

(50 marks, 1 hour 50 minutes)

Section A: Visual Text & Short Text (5 marks)

Section B: Narrative or Recount Text (20 marks)

Section C: Non-narrative Text (25 marks)

### **Paper 3: Listening Comprehension**

(30 marks, approximately 1 hour)

Part 1: Various listening tasks (22 marks)

Part 2: Note-taking (8 marks)

### **Paper 4: Oral Communication**

(30 marks, approximately 20 minutes)

Part 1: Planned Response (15 marks)

Part 2: Spoken Interaction (15 marks)

The two parts may be thematically linked.



# Assessment Format

## (NT Level Syllabus 2020)

### **Paper 1: Writing**

(70 marks, 1 hour 20 minutes)

Section A: Grammar Editing (10 marks)

Section B: Situational Writing (30 marks)

Section C: Continuous Writing (30 marks)

### **Paper 2: Language Use & Comprehension**

(60 marks, 1 hour 50 minutes)

Section A: Language Use (20 marks)

Section B: Reading Comprehension (40 marks)

### **Paper 3: Listening Comprehension**

(20 marks, approximately 45 minutes)

Various listening tasks

### **Paper 4: Oral Communication**

(40 marks, approximately 20 minutes)

Part 1: Reading Aloud (15 marks)

Part 2: Spoken Interaction (25 marks)

The two parts are not thematically linked.





# Assessment Format (Sec 2 End-of-Year Examination)

**Paper 1: Writing**

**Paper 2: Reading Comprehension**

**Paper 3: Listening Comprehension**

~~**Paper 4: Oral Communication**~~ (tested as part of Weighted Assessment 3)



# Importance of doing well in English

## English as L1 (L1R5/EMB3)

English Language will be counted in the overall score when choosing post-secondary pathways

At least a C6 grade in English is required for entry to Junior College

At least a C6 or D7 grade in English is required for entry in Polytechnic courses

At least a Grade 3 in English is required for Polytechnic Foundation Programme

At least a Grade 5 in English is required for the more popular courses in ITE

## English in Post-Secondary Endeavours

General Paper in Junior College

Reports and presentations in Polytechnics/ITEs



# Good Habits for English

## Read widely and regularly

- Students are encouraged to read story books and newspaper articles (online or print) to broaden language skills as well as general knowledge
- Set reading goals e.g., complete reading *one* book in *two* weeks
- Subscribe to useful channels on social media and turn on notifications, e.g., English with Cambridge, BBC News on YouTube; CNA Latest on Telegram.

## Practice makes perfect

- Pick out new words and expressions and find out their meaning using Cambridge or Oxford online dictionaries
- Apply these words and expressions in *daily* writing and speaking, e.g., journal, vlog or even social media caption



# Good Habits for English

## Exposure is key

- Speaking good English is important; it starts with listening to good English. Listen to radio podcasts that will expose you to good English, e.g., Spotify: Global News Podcast, 6 Minute English, 6 Minute Vocabulary
- Speak good English regularly, e.g., set aside time to speak the Mother Tongue and English languages at home

## Revise conscientiously

- Give undivided attention during lessons
- Always revise what you just learnt, especially if it is something that you will require in the long run, e.g., grammar rules.
- Clarify doubts with your teacher immediately, especially if you do not understand the skill or concept taught in class





# Good Habits for English

## **Learning is a lifelong process**

These things may sound tedious and starting on them may seem difficult, but once all these things become habits, they become a part of your lifestyle and you will only stand to benefit from them.



# Mother Tongue Language

Mdm Ho Chui Mei, HOD MTL



# Mother Tongue Language (MTL) Bilingual Policy

- ❑ MTL is a compulsory subject in secondary school
- ❑ Every student will register a MTL subject for their National Exams at Secondary 4
- ❑ MOE examinable MTL subjects: Malay Language (ML), Chinese Language (CL) and Tamil Language (Tamil Language), NTIL (Non Tamil Indian Language), French, Japanese, German, Thai, Burmese, Arabic
- ❑ Different levels of difficulty and streams: MTL, BMTL, HMTL, MTLB (B syllabus)



<b>Course / Language Skills</b>	<b>Reading</b>	<b>Listening, Speaking &amp; Spoken Interaction</b>	<b>Writing &amp; Written Inter- action</b>
<b>Basic Mother Tongue Language</b>	25%	65%	10%
<b>Mother Tongue Language 'B'</b>	30%	50%	20%
<b>Normal (Academic) Mother Tongue Language</b>	30%	45%	25%
<b>Express Mother Tongue Language</b>	35%	35%	30%
<b>Higher Mother Tongue Language</b>	30%	25%	45%



# How to Excel in MTL

- ❑ Cultivate reading habits (novels, magazines, newspapers, e.g. Zbcomma, Berita Harian, Tamil Murasu)
- ❑ Listen to the radio and watch the news
- ❑ Consistent accumulation of vocabulary and proverbs
- ❑ Communicate in MTL daily and frequently
- ❑ Include MTL media in hobbies or leisure

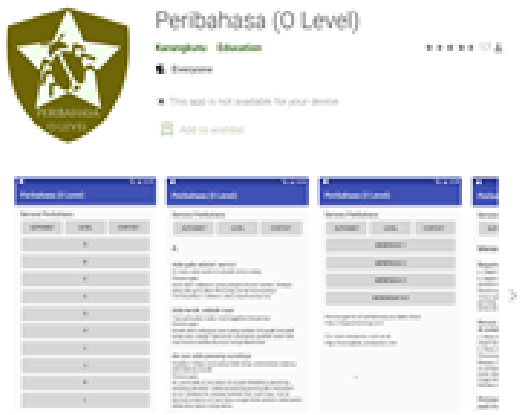




# Examples of Online Apps / Resources



**Free Apps**  
Kamus Pro  
Peribahasa (O Level)



<https://zbschools.sg/>



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# Possible future pursuits

## Courses in higher education

- Higher NITEC in Early Childhood Education
- Diploma in Chinese Studies/Chinese Media and Communication (NP)
- H1H2H3 MTL at JCs
- Diploma in Education CL/ML/TL (NIE)
- Diploma in early childhood (TP/NP/NIEC)

## Profession

- Radio DJ
- Teacher
- Newspaper reporter
- Editor
- Writer
- Content creator
- Work overseas



# 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



# How to Improve One's Mathematics

- **Understand** what is being taught
  - ☐ Read the textbook, notes to understand
  - ☐ Clarify any doubts with teachers as soon as possible
  - ☐ Do not let doubts accumulate
- **Practise**, practise, practise
  - ☐ Master problem-solving skills through practice
  - ☐ Familiarise oneself with different question types
  - ☐ Review given feedback and do corrections with understanding
  - ☐ Learn to identify conceptual / careless mistakes





# Difference Between Maths and Additional Maths

- more abstract concepts
- more complex procedural skills / manipulation needed
- more self-structuring and scaffolding by students
- appreciation of Algebra, Geometry and Calculus



# Additional Mathematics

## Aims

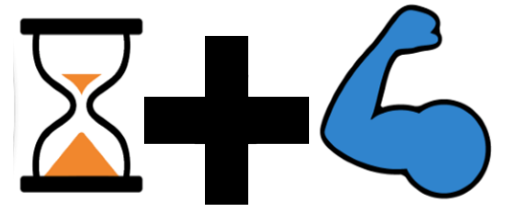
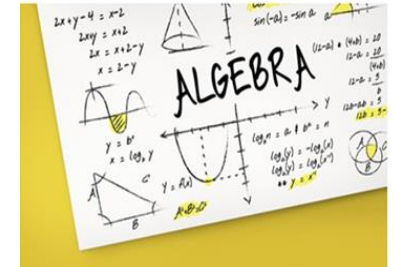
- Prepare students adequately in **concepts and skills** for higher studies in Mathematics
- Develop **reasoning, thinking skills** and heuristics, through mathematical approach to problem-solving
- **Appreciate** the abstract nature and **power of mathematics**
- Topics covered include Algebra, Geometry & Trigonometry, and Calculus



# Additional Mathematics

## 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

- Polytechnics - most courses require grade C6 and better
- Polytechnic Foundation Programme - NA Maths grade 3 and above



# Implications on Post Secondary Options

## Additional Mathematics

**Lays a strong foundation** in Mathematics and prepares students for study of Mathematics at higher levels, including:

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





# Eligibility criteria for 3Exp & 3NA 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



# Assessment Format for Additional Mathematics

## O-Level Additional Mathematics (Code – 4049)

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

## N(A)-Level Additional Mathematics (Code – 4051)

Paper	Duration	Description	Marks	Weighting
1	1 h 45 min	There will be 13 – 15 questions of varying marks and lengths. Candidates are required to answer all questions.	70	50%
2	1 h 45 min	There will be 8 – 10 questions of varying marks and lengths. Candidates are required to answer all questions.	70	50%



# Assessment Format for Mathematics

## O-Level Mathematics (Code – 4052)

Paper	Duration	Description	Marks	Weighting
1	2 h 15 min	There will be about 26 short-answer questions. Candidates are required to answer all questions.	90	50%
2	2 h 15 min	There will be 9 – 10 questions of varying marks and lengths. The last question in this paper will focus specifically on applying mathematics to real-world scenario. Candidates are required to answer all questions	90	50%

## N(A)-Level Mathematics (Code – 4045, First Year of Examination – 2023)

Paper	Duration	Description	Marks	Weighting
1	2 h	There will be about 23 short-answer questions. Candidates are required to answer all questions.	70	50%
2	2 h	Section A: There will be 9 – 10 questions of varying marks and lengths. The last question in this section will focus specifically on applying mathematics to a real-world scenario. Candidates are required to answer all questions.  Section B: There will be 2 questions of which candidates will be required to answer only one. Each question carries the same number of marks, i.e., either 7 or 8 marks.	70	50%



# Assessment Format for Mathematics

N(T)-Level Mathematics (Code – 4046)

Paper	Duration	Description	Marks	Weighting
1	1 h 30 min	There will be 11 – 13 short-answer questions of 2 – 4 marks each, largely context-free and testing fundamental concepts and skills, followed by 2 longer questions of 6 – 8 marks, developed around a context. Candidates are required to answer all questions which will cover topics from the following strands <ul style="list-style-type: none"><li>• Number and Algebra</li><li>• Geometry and Measurement</li></ul>	50	50%
2	1 h 30 min	There will be 11 – 13 short-answer questions of 2 – 4 marks each, largely context-free and testing fundamental concepts and skills, followed by 2 longer questions of 6 – 8 marks, developed around a context. Candidates are required to answer all questions which will cover topics from the following strands <ul style="list-style-type: none"><li>• Number and Algebra</li><li>• Statistics and Probability</li></ul>	50	50%



# Science

Mrs Lilian Tan, HOD SCI



# What Our NT Students have learnt in Lower Secondary Science

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 NA & Exp Students have learnt in Lower Secondary Science

Chemistry	Physics	Biology
<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>



# Upper Secondary Science Syllabus

## Secondary 3 and 4



# N-Level (Normal Technical) 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
4. Chemical Calculations
5. Acid-Base Chemistry
6. Qualitative Analysis
7. Patterns in the Periodic Table
8. Organic Chemistry
9. Maintaining Air Quality

# N-Level Science

## (Chemistry/Biology)

## (Physics/Chemistry)

### 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



# Coverage of Topics (O-Level)

<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





# **N & O Level Science Assessment**



# N-Level Normal Technical 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%



# N-Level Science Assessment (Chem/Bio & Phy/Chem)

Paper	Type of Paper	Duration	Marks	Weightage
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%



# (Pure) Physics, Chemistry and Biology O-Level Assessment

Paper	Type of Paper	Duration	Marks	Weightage
1	Multiple Choice	1 h	40	30%
2	Structured and Free Response	1 h 45 min	80	50%
3	Practical Test	1 h 50 min	40	20%



# Science (Phy/Chem, Chem/Bio) O Level Assessment

Paper	Type of Paper	Duration	Marks	Weightage
1	Multiple Choice	1 h	40 (20 marks for each science)	20.0%
2	Structured and Free Response <b>(Physics)</b>	1 h 15 min	65	32.5%
3	Structured and Free Response <b>(Chemistry)</b>	1 h 15 min	65	32.5%
4	Structured and Free Response <b>(Biology)</b>	1 h 15 min	65	32.5%
5	Practical	1 h 30 min	30 (15 marks for each science)	15.0%



# Post Secondary Options

## @ Institutes of Higher Learning





# Post Secondary Options (N-Level)

## Applied 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 (O Level)

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



# Humanities

Mdm Khalidal, HOD Humanities



# Humanities in Upper Secondary

CORE Humanities		ADDITIONAL Humanities	
<div>O-LEVEL</div> <div>N-LEVEL</div>	Humanities	Geography	O-LEVEL
	Social Studies & Geography or Social Studies & History	History	O-LEVEL
	Social Studies & Literature	Literature	O-LEVEL
		Principles of Accounts	O-LEVEL N-LEVEL



Triple Science/Double Humanities Combination (8 Subjects)		
<b>6 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Additional Mathematics	✓
	Chemistry	✓
	Physics	✓
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <b><u>1 out of 3</u></b> subjects
	Social Studies & History	
	Social Studies & Literature	
<b>1 Option Subject</b>	Biology	Choose <b><u>1 out of 4</u></b> subjects
	History	
	Geography	
	Literature	

Double Science Combination (7 Subjects)		
<b>5 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Additional Mathematics	✓
	Chemistry	✓
<b>1 Science Subject</b>	Physics	Choose <b><u>1 out of 2</u></b> subjects
	Biology	
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <b><u>1 out of 3</u></b> subjects
	Social Studies & History	
	Social Studies & Literature	



Combined Science with A Math (7 subjects)		
<b>4 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Additional Mathematics	✓
<b>1 Science Subject</b>	Science (Physics/Chemistry)	Choose <u>1</u> <b>out of 2</b> subjects
	Science (Biology/Chemistry)	
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <u>1</u> <b>out of 3</b> subjects
	Social Studies & History	
	Social Studies & Literature	
<b>1 Option Subject</b>	Art	Choose <u>1</u> <b>out of 6</b> subjects
	Design & Technology	
	Nutrition and Food Science	
	History	
	Geography	
	Literature	

Combined Science with POA (7 subjects)		
<b>4 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
	Principles of Accounts (POA)	✓
<b>1 Science Subject</b>	Science (Physics/Chemistry)	Choose <u>1</u> <b>out of 2</b> subjects
	Science (Biology/Chemistry)	
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <u>1</u> <b>out of 3</b> subjects
	Social Studies & History	
	Social Studies & Literature	
<b>1 Option Subject</b>	Art	Choose <u>1</u> <b>out of 6</b> subjects
	Design & Technology (D & T)	
	Nutrition and Food Science	
	History	
	Geography	
	Literature	





## ***Sec 3 Normal Course 2024 Subject Combinations***

Sec 3 Normal Academic		
<b>3 Compulsory Subjects</b>	English Language	✓
	Mother Tongue Language	✓
	Mathematics	✓
<b>1 Science Subject</b>	Science (Physics/Chemistry)	Choose <b><u>1 out of 2</u></b> subjects
	Science (Biology/Chemistry)	
<b>1 Humanities Subject</b>	Social Studies & Geography	Choose <b><u>1 out of 3</u></b> subjects
	Social Studies & History	
	Social Studies & Literature	
<b>1 Option Subject</b>	Art (Express)	Choose <b><u>1 out of 5</u></b> subjects
	Design & Technology (D & T) (Express)	
	Nutrition and Food Science (Express)	
	Additional Mathematics	
	Principles of Accounts (POA)	



# Post-secondary fields of study requiring different subjects



Note: List is not exhaustive. Please check out respective poly/ITE/university courses.

## Geography

Fields of study that require Geography:

- Environmental Studies
- Nautical Studies (Shipping)
- Tourism and Hospitality
- Economics
- Geography

## History

Fields of study that require History:

- Mass Communications
- Art Business Management
- Game Design
- Business
- Political Science

## Literature

Fields of study that require Literature:

- Mass Communications
- Law
- Drama and Filmmaking
- Political Science
- Sociology

## Principles of Accounts

Fields of study that require Principles of Accounts:

- Accountancy
- Business and Finance
- Tourism and Hospitality Studies
- Law and Management

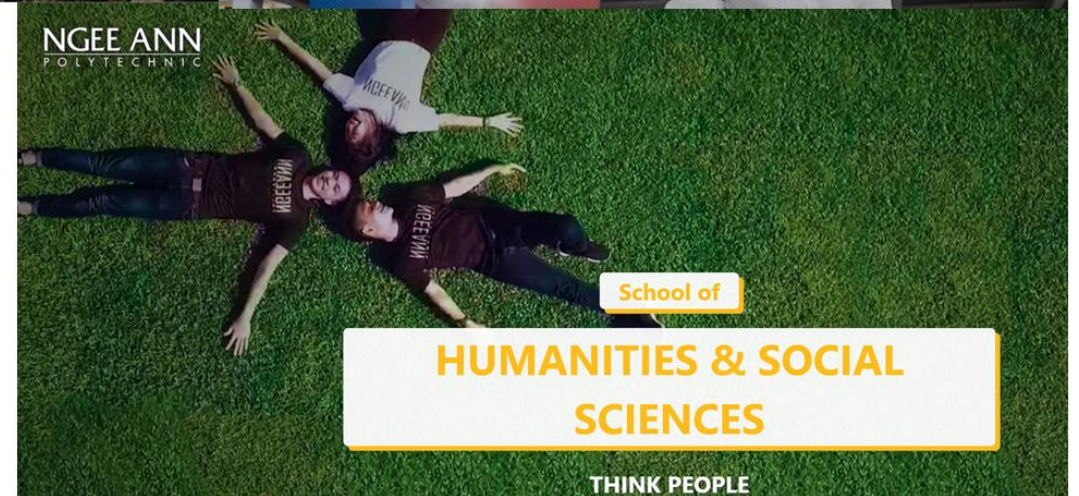
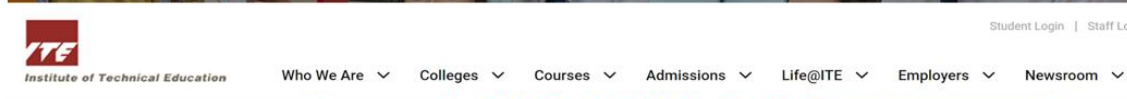
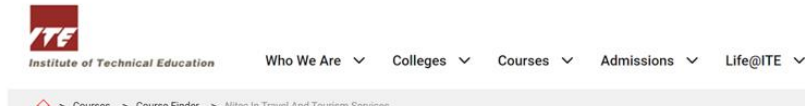
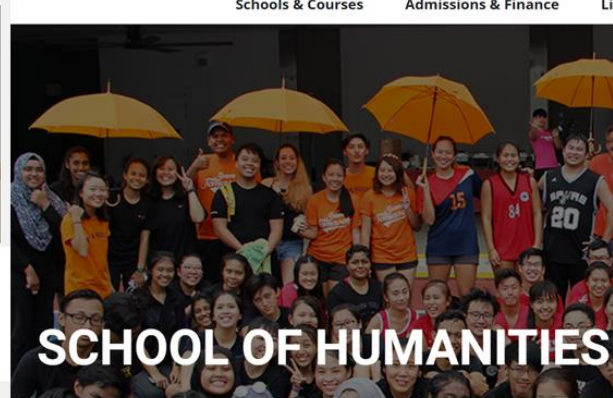




College of Humanities  
and Sciences



College of Humanities, Arts, and Social Sciences



East Spring Secondary School

Creative Learners//Upright Leaders//Global Thinkers

# Coursework

Mdm Clara Sng, HOD Craft & Technology



# Coursework Subjects Offered in 2024

Subjects Offered	Sec 3 Exp Course	*Sec 3 N(A) Course	Sec 3 N(T) Course
Art	Yes	Yes	Yes
Design & Technology (D&T)	Yes	Yes	Yes
Nutrition Food Science (NFS)	Yes	Yes	Yes
Elements of Business Studies (EBS)			Yes

*\*The school will offer students in the 3N(A) course 'O' level Art, D&T and NFS in Sec 4*



# What Coursework Looks like?(e.g. from O level)

Design and Technology	Nutrition Food Science	Art
<b>Coursework:</b> 60% Timeline: <b>Jan to July</b>	<b>Coursework:</b> 60% Timeline: <b>Jan to Aug</b>	<b>Coursework:</b> 60% Timeline: <b>Jan to Sept</b>
<u>Coursework Components</u> <ul style="list-style-type: none"> <li>• 90 page Journal</li> <li>• 2 Presentation Boards</li> <li>• Mock-up &amp; Prototype construction</li> </ul>	<u>Coursework Components</u> <ul style="list-style-type: none"> <li>• 25 page Report</li> <li>• Preparation of 3 to 4 dishes</li> <li>• Research, Planning, Development, Evaluation, Food Science Investigation</li> </ul>	<u>Coursework Components</u> <ul style="list-style-type: none"> <li>• 8 A2-size boards with the following: Research, Sketches, Development, Colour scheme, Artist References</li> <li>• 1 Final Artwork</li> </ul>
<b>Theory Paper: 40%</b>	<b>Theory Paper: 40%</b>	<b>Drawing and Painting Paper: 40%</b>





# Attributes That Will Help You Do Well

- ✓ **Responsible and self-disciplined**
  - Consistent practice, timely work submissions
- ✓ **Resilient**
  - Persevering even in times where deadline is due
- ✓ **Self-directed and good management of self**
- ✓ **Open and Receptive to feedback and improve**



# Post Secondary Options

## D&T

- Engineering (Electrical, Mechanical, Aerospace, Aeronautical, Civil, Automotive, Mechatronic, Biomedical)
- Interior design, Fashion design, Spatial design
- Product Design, Industrial Design, Architecture
- Robotics, Intelligence, Systems engineering

## NFS

- Food Science and Nutrition
- Food and Sciences / Applied Science and Nutrition
- Consumer Science and Technology
- Biotechnology
- Sports, Health and Leisure
- Hotel and Hospitality Management
- Restaurants and Hospitality Management
- Nutrition, Health and Wellness

## Art

- A Level Art (JC)
- Apparel Design & Merchandising
- Digital Film and Television
- Interior Architecture & Design
- Diploma in Film, Sound and Video
- Diploma in Digital Visual Effects
- Animation & 3D Arts
- Diploma in Architecture
- Diploma in Digital Animation
- Diploma in interior Design

