Yio Chu Kang Secondary School

Curriculum & Assessment Briefing for Parents

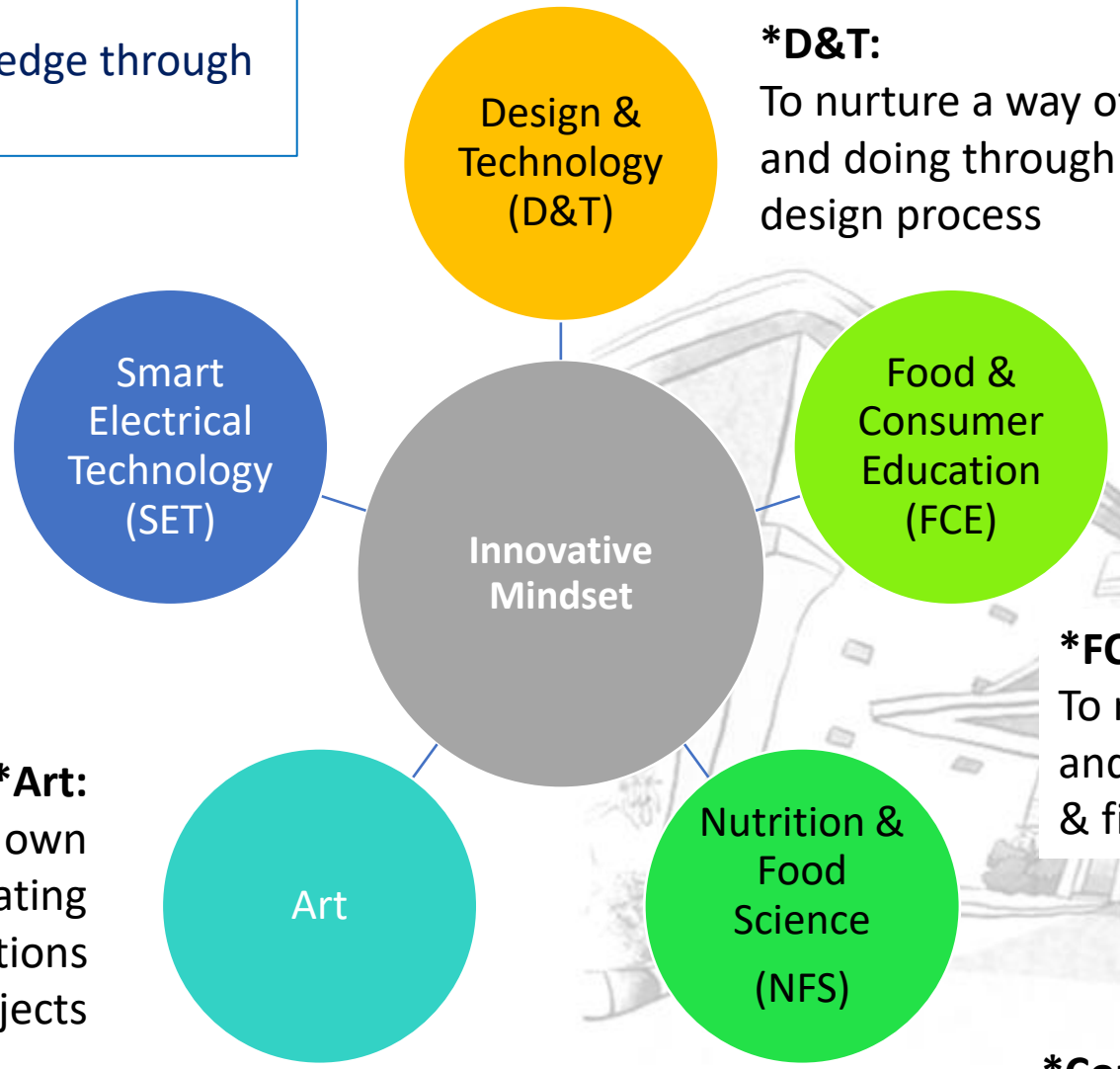
2025

The Intent

The purpose of this briefing is to communicate subject expectations as well as post-secondary and career options so as that you can make informed decisions (when exercising subject options for Secondary 3).

The Rationale

Applied Learning:
To visualise and construct knowledge through hands-on learning.



***D&T:**
To nurture a way of thinking and doing through the design process

SET:
To connect to current and future needs of industries in an immediate and explicit manner

***FCE/NFS:**
To respond to new lifestyle and consumer trends – health & financial management

***Art:**
To reflect and create own uniqueness by communicating thoughts and emotions through images/objects

***Coursework Subjects**

An overview (2025)

Coursework Subjects	Lower Secondary	Upper Secondary*
Art	Sec 1 Sec 2	Sec 3 G3, Sec 3 G2 Sec 4E
Design & Technology (D&T)		Sec 3 G3, Sec 3 G2 Sec 4 E, N(A) & N(T) Sec 5 N(A)
Food & Consumer Education (FCE)/ Nutrition and Food Science (NFS)		Sec 3 G3 Sec 4 E, N(A)

Non- Coursework Subjects	Lower Secondary*	Upper Secondary*
Smart Electrical Technology (SET)	---	Sec 3 G1 & 4 N(T)

* E- Express; N(A)- Normal (Academic); N(T)- Normal (Technical)

Post-Secondary Options

	L1R5 : For Junior College Course		
L1	First Language	-	English/Higher Mother Tongue
R5	Relevant Subject 1	-	Humanities/Higher Art/Higher Music/Malay (Special Programme)/ Chinese (Special Programme)/Bahasa Indonesia
	Relevant Subject 2	-	Mathematics/Science
	Relevant Subject 3	-	Humanities/Higher Art/Higher Music/Mathematics/ Science/ Malay (Special Programme)/Chinese (Special Programme)/ Bahasa Indonesia
	Relevant Subject 4	-	Any GCE 'O' Level subjects (except Religious Knowledge)
	Relevant Subject 5	-	Any GCE 'O' Level subjects (except Religious Knowledge)

	L1R4 : For Millennia Institute Course		
L1	First Language	-	English/Higher Mother Tongue
R4	Relevant Subject 1	-	Humanities/Higher Art/Higher Music/Mathematics/ Science/ Malay (Special Programme)/Chinese (Special Programme)/ Bahasa Indonesia
	Relevant Subject 2	-	Humanities/Higher Art/Higher Music/Mathematics/ Science/ Malay (Special Programme)/Chinese (Special Programme)/ Bahasa Indonesia
	Relevant Subject 3	-	Any GCE 'O' Level subjects (except Religious Knowledge)
	Relevant Subject 4	-	Any GCE 'O' Level subjects (except Religious Knowledge)

Post-Secondary Options

Nutrition and Food Science

A- Arts & Humanities; B- Business; C- Science & Technology; D-Design

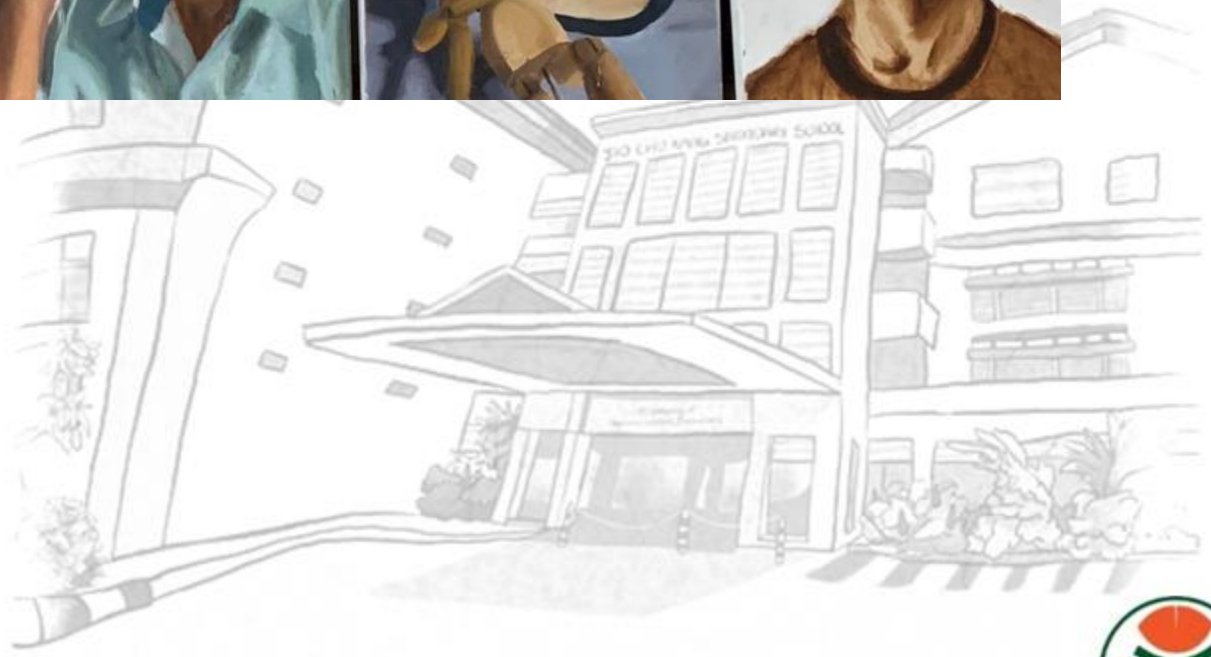
		ELR2B2 : For Polytechnic Courses			
Aggregate Type		ELR2B2 -A	ELR2B2-B	ELR2B2-C	ELR2B2-D
EL		English			
R2	2nd Group of Relevant Subjects	~~Additional Mathematics~~ Art/Art & Design ~~Business Studies~~ Chinese Combined Humanities Commerce Commercial Studies ~~Creative 3D Animation~~ Design & Technology ~~Design Studies~~ Economics ~~Elementary Mathematics~~ **Nutrition and Food Science** ~~Geography~~ Higher Art Higher Chinese Higher Malay Higher Music Higher Tamil	Art / Art & Design ~~Business Studies~~ Combined Humanities Commerce Commercial Studies Economics Geography Higher Art Higher Music History Intro to Enterprise Development Literature in English Literature in Chinese Literature in Malay Literature in Tamil Media Studies (English) Media Studies (Chinese) Music Principles of Accounts	Add[n] Combined Science Additional Science Biology Biotechnology Chemistry Combined Science Computer Studies ~~Creative 3D Animation~~ Design & Technology ~~Engineering Science~~ **Nutrition and Food Science** ~~Fundamentals of Electronics~~ General Science Human & Social Biology Integrated Science Physics Physical Science Science (Chem, Bio) Science (Phy, Bio)	Add[n] Combined Science ~~Additional Science~~ Art / Art & Design ~~Biology~~ Biotechnology Chemistry Combined Science Computer Studies ~~Creative 3D Animation~~ Design & Technology ~~Design Studies~~ ~~Engineering Science~~ **Nutrition and Food Science** ~~Fundamentals of Electronics~~ General Science Higher Art Human & Social Biology Integrated Science Media Studies (English)

Poly Foundation Programme (PFP)

- Applicable for 4N(A) students
- Obtained a raw score of 12 points or better, excluding CCA bonus points for ELMAB3
- Meet the min. grade for Group 1 or Group 2 courses

One of the relevant subjects	Group 1 (Science & Tech)	Group 2 (Non-Science & Tech)
Art		3
Design & Technology	3	
Nutrition and Food Science	3	

Art



Art – Curriculum Objectives

Students are expected to develop understanding in:

- **Subject Content**:
  - Studio Practice: creation of artworks.
- **Process Skills**:
  - Communication - Drawing, painting, moulding, rendering
  - Visual Inquiry – describe, analyse, interpret, evaluate
  - Research and Processing – observe, record, compare, organise, discern

to give form to ideas and experiences.

Assessment (2025)

Course (Syllabus Code)	Express (6123)	Normal (Academic) (6125)	Duration	Weighting
Paper 1	<u>Coursework</u> A final artwork; and Not more than ***eight*** sheets of A2 preparatory studies	<u>Coursework</u> A final artwork; and Not more than ***five*** sheets of A2 preparatory studies	Jan – Mid Sep [O-Level] Jan – End July [N(A)]	**60%**
Paper 2	<u>Drawing & Painting</u> Question Paper given 3 weeks before the start of GCE 0-Level Exam Response to 1 of the themes with ***three*** to ***five*** A3 pieces of preparatory studies	<u>Drawing & Painting</u> Question Paper given 3 weeks before the start of GCE N-Level Exam Response to 1 of the themes with ***three*** to ***five*** A3 pieces of preparatory studies	3 hours	**40%**

G2 (6127) /G3 (6114) Assessment (from 2026)

Art *NEW!*

Description/Duration						Weighting
[G3] 1 Visual Response	**Section A: Visual Analysis** • **One** question will be set, with two sub-parts for visual analysis and discussion. • The question is accompanied by one unseen visual stimulus	10	[or]	[G2] 1 Visual Response	**Section A: Visual Analysis** • **One** question will be set, with two sub-parts for visual analysis and discussion. • The question is accompanied by one unseen visual stimulus.	10	**50%**
	Section B: Exploratory Sketching • **One** practical task in response to a visual stimulus. Candidates will provide sketches with annotations, culminating in a sketch that shows their concept for the visual response	40			**Section B: Exploratory Sketching** • **One** practical task in response to a visual stimulus. Candidates will provide sketches with annotations, culminating in a sketch that shows their concept for the visual response	40	
(2h 15 min)							
[G3] 2 Portfolio	**Part A: Selection of Visual Materials** • Maximum of **15 screens** illustrating artistic exploration and processes which include at least **3** art forms and media.	30	[or]	[G2] 2 Portfolio	**Part A: Selection of Visual Materials** • Maximum of **10 screens** illustrating artistic exploration and processes which include at least **2** art forms and media.	30	**50%**
	Part B: Commentary • An articulation of personal artistic growth based on **3** works, in **not more than 800 words, and under 10 A4-sized pages**.	20			**Part B: Commentary** • An articulation of personal artistic growth based on **2** works, in **not more than 500 words, and under 8 A4-sized pages**.	20	
(30h within 12 weeks)							

Post-Secondary and Career Options

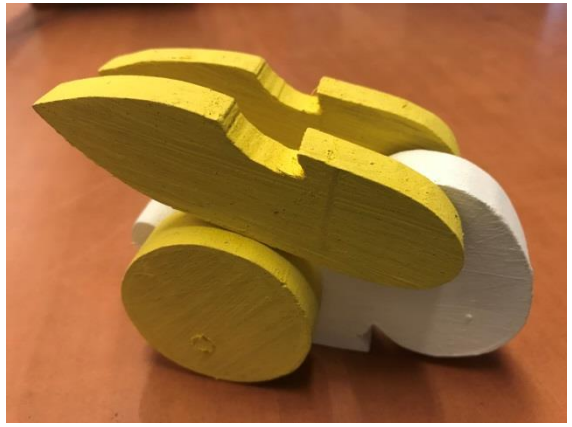
Institutions	Courses**
Polytechnics	Business & Management, Humanities, Media and Design
ITE	Design & Media

Career Prospects**

Commercial / Fine Artist, Game and Level Designers, Graphic Designers, 3D Animators, Multimedia Producers, Storyboard Artists, Fashion Buyers, Product Designers etc.

***This list of courses/career prospects is non exhaustive.*

Design & Technology



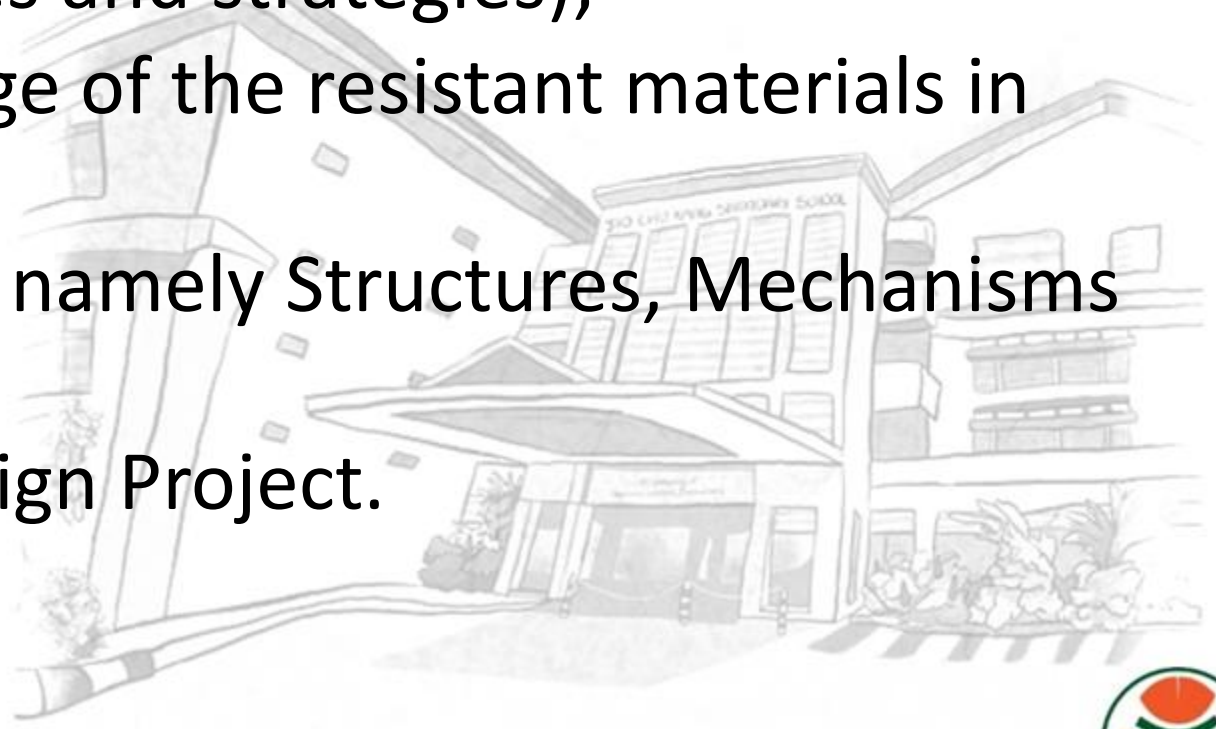
D&T – Curriculum Objectives

Students are expected to develop understanding in:

Subject Content:

- Design Method (techniques and strategies);
- A sound working knowledge of the resistant materials in plastics, metal and wood;
- Three technological areas, namely Structures, Mechanisms and Electronics;

before embarking on the Design Project.



D&T – Curriculum Objectives

Students are expected to develop understanding in:

- **Process Skills**:
  - Designing (Visualise, Explore, Develop, Present and Communicate Ideas);
  - Drawing/Sketching; and
  - Making (Use of tools and machineries).

Assessment – D&T Coursework

Paper	Express /G3 (7059)	Normal (Academic) /G2 (7055)	Normal (Technical) / G1 (7062)	Examination Duration	Weighting
1	Written Paper	Written Paper	Written Paper	2 hours [O-Level]	40%
				1.5 hours [N(A)]	
				1 hour [N(T)]	30%
2	Design Project -A3 Journal, Presentation Boards & Artefact	Design Project -A3 Journal, Presentation Boards & Artefact	Design Project -A3 Journal, Presentation Boards & Artefact	Jan – end Jul (22 weeks) [O-Level]	60%
				Jan- mid Jul (20 weeks) [N(A)]	
				Jan- mid Jul (20 weeks) [N(T)]	70%

Post-Secondary Options

A- Arts & Humanities; B- Business; C- Science & Technology; D-Design

		ELR2B2 : For Polytechnic Courses			
Aggregate Type		ELR2B2 -A	ELR2B2-B	ELR2B2-C	ELR2B2-D
EL		English			
R2	2nd Group of Relevant Subjects	Additional Mathematics Art/Art & Design Business Studies Chinese Combined Humanities Commerce Commercial Studies Creative 3D Animation Design & Technology Design Studies Economics Elementary Mathematics Food & Nutrition Geography Higher Art Higher Chinese Higher Malay Higher Music Higher Tamil	Art / Art & Design Business Studies Combined Humanities Commerce Commercial Studies Economics Geography Higher Art Higher Music History Intro to Enterprise Development Literature in English Literature in Chinese Literature in Malay Literature in Tamil Media Studies (English) Media Studies (Chinese) Music Principles of Accounts	Add^{n} Combined Science Additional Science Biology Biotechnology Chemistry Combined Science Computer Studies Creative 3D Animation Design & Technology Engineering Science Food & Nutrition Fundamentals of Electronics General Science Human & Social Biology Integrated Science Physics Physical Science Science (Chem, Bio) Science (Phy, Bio)	Add^{n} Combined Science Additional Science Art / Art & Design Biology Biotechnology Chemistry Combined Science Computer Studies Creative 3D Animation Design & Technology Design Studies Engineering Science Food & Nutrition Fundamentals of Electronics General Science Higher Art Human & Social Biology Integrated Science Media Studies (English)

Post-Secondary and Career Options

Institutions	Courses**
Polytechnics	Applied Sciences, Built Environment, Engineering, Health Sciences, Information & Digital Technologies, Maritime Studies, Media & Design
ITE	Applied Sciences, Electronics and Info-Comm Technologies, Engineering

Career Prospects**

Electrical/Product/Process Engineer, Programmer, Hardware/Software Developers, 3D Designers, CADD Specialist, Draughtsman, Facility Management Engineer etc.

***This list of courses/career prospects is non exhaustive.*



Nutrition and Food Science (NFS)

Food and Consumer Education (FCE)

Nutrition and Food Science (NFS)

NFS – Curriculum Objectives

Students are expected to develop understanding in:

- **Subject Content**:
  - –concepts of nutrition and meal planning;
  - –the link between diet and health; and
  - –food science;

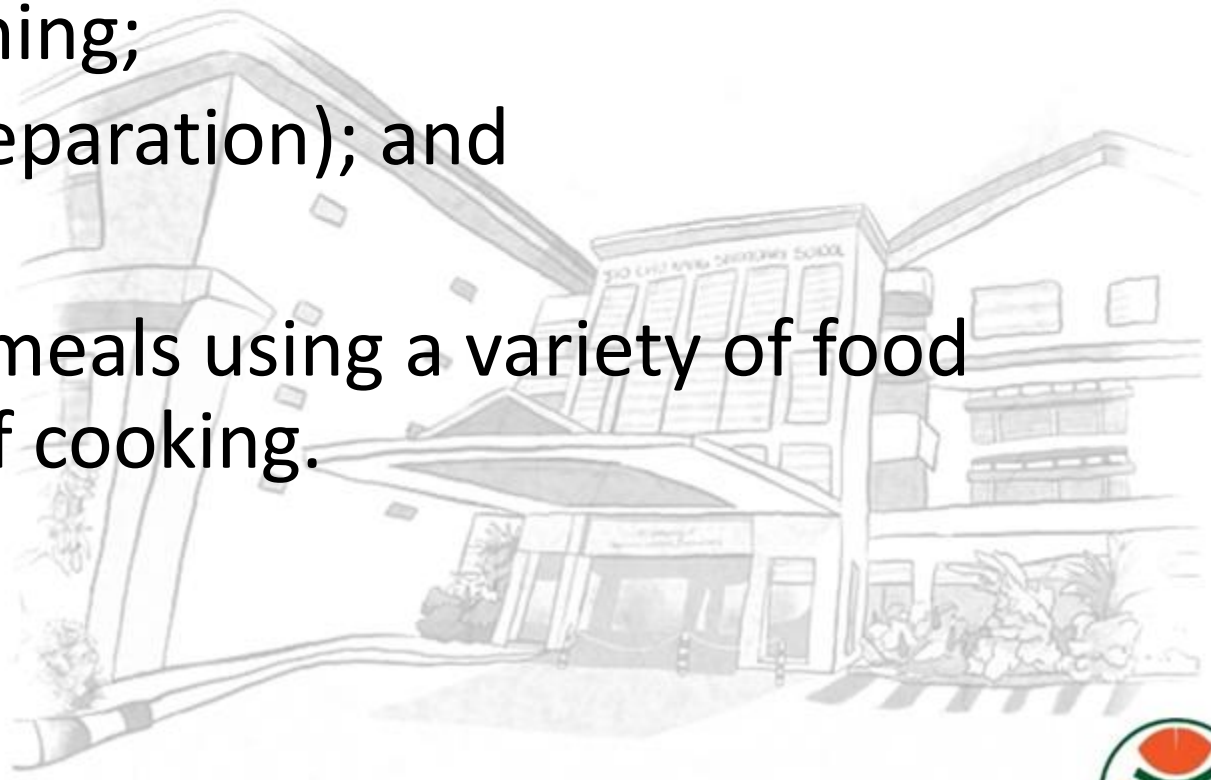
so that students are able to make informed food choices and in creating healthier food products.

NFS – Curriculum Objectives

Students are expected to develop understanding in:

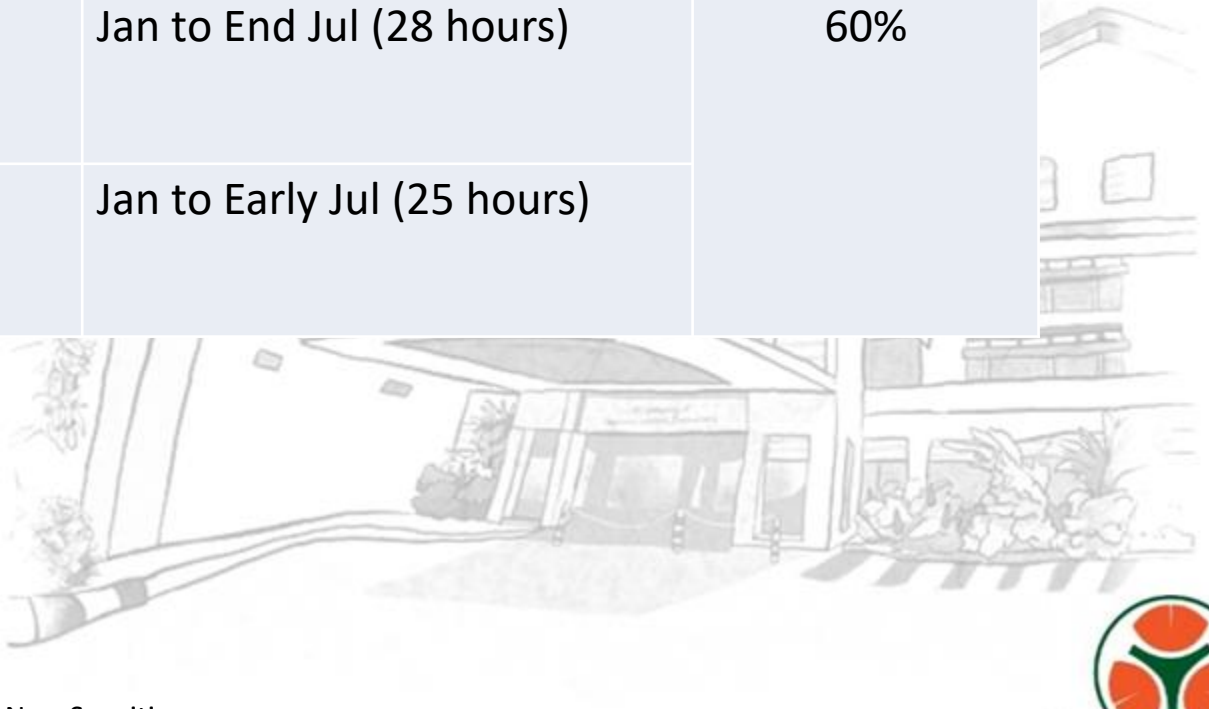
- **Process Skills**:
  - –Balanced Diet in Meal Planning;
  - –Food (Cooking and Food Preparation); and
  - –Report Writing

  to plan and prepare healthy meals using a variety of food commodities and methods of cooking.



Assessment – NFS Coursework

Paper	Description	Duration	Weighting
1	Written Paper [**O Level (6097) / G3**]	2 hours [**O Level**]	40%
	Written Paper [**N(A) Level (6073) / G2**]	1.5 hours [**N(A) Level**]	
2	Coursework **20-25** pages [**O Level (6097) / G3**]	Jan to End Jul (28 hours)	60%
	Coursework **15-20** pages [**N(A) Level (6073) / G2**]	Jan to Early Jul (25 hours)	



Post-Secondary Options

A- Arts & Humanities; B- Business; C- Science & Technology; D-Design

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Aggregate Type		ELR2B2 -A	ELR2B2-B	ELR2B2-C	ELR2B2-D
EL		English			
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Post-Secondary & Career Options

Institutions	Courses**
Polytechnics	Applied Sciences, Business & Management (Food & Beverage Business), Health Sciences
Shatec	Culinary Skills, Pastry and Baking
ITE	Pastry & Baking; Food & Beverage Operations Western Culinary Arts; Asian Culinary Arts

Career Prospects**

Research Chef, Baking/Culinary Technologist, Nutrition Executive, Dietician, Nutrition Educator, Food Chemist/ Laboratory Technologist, R&D Executive, Food Service and Operations Executive in Hotels, Chef etc.

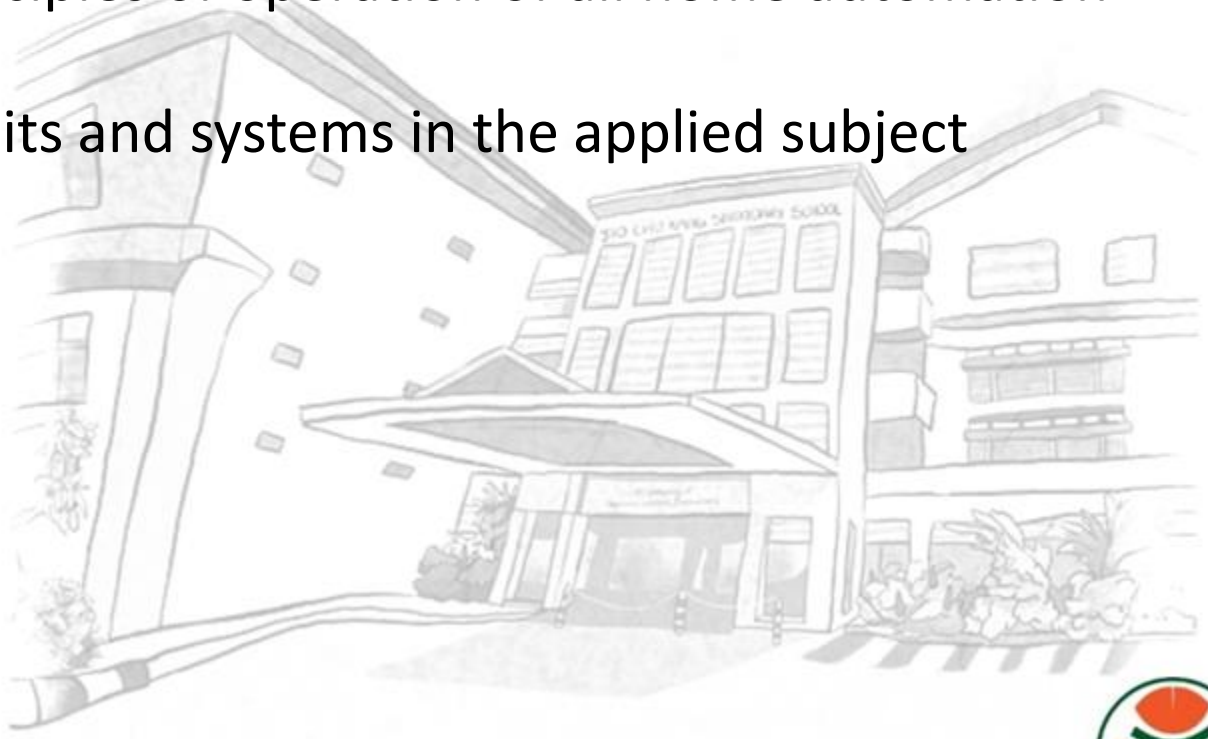
***This list of courses/career prospects is non exhaustive.*

Smart Electrical Technology (SET)

SET – Curriculum Objectives

Students are expected to develop understanding in:

- **Subject Content:**
  - Core, foundational concepts and principles of operation of all home automation systems
  - Foundation training in electrical circuits and systems in the applied subject



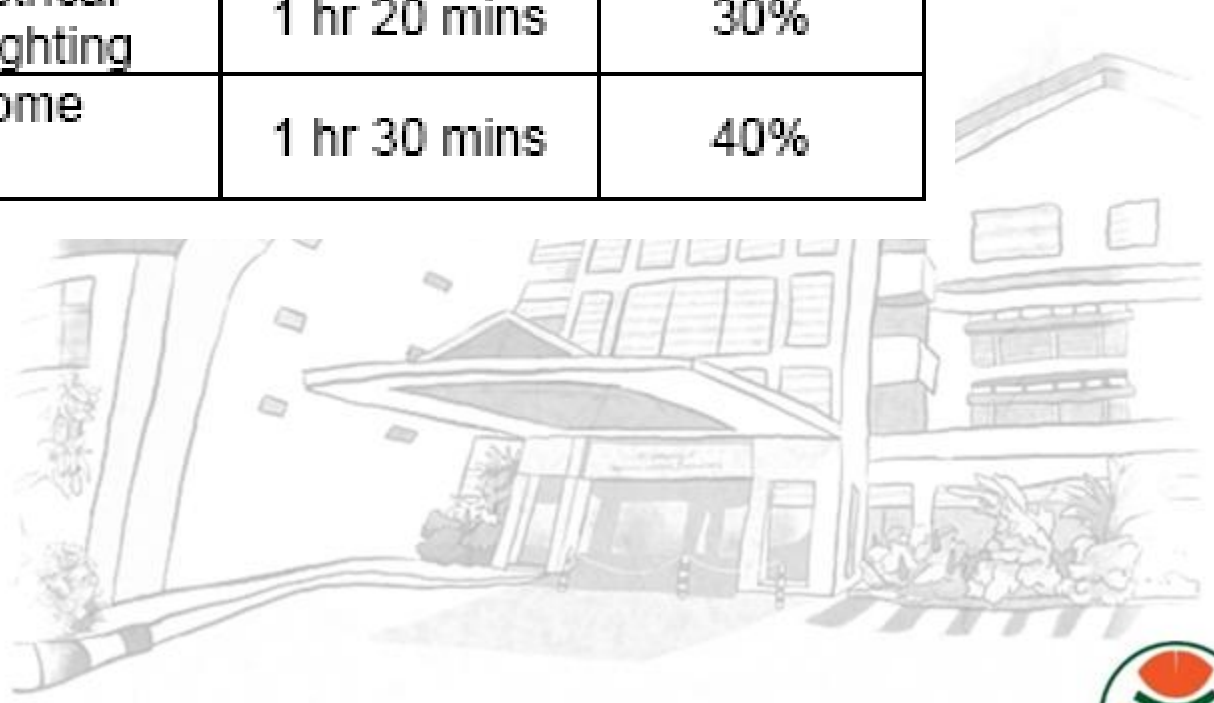
SET – Curriculum Objectives

Students are expected to develop understanding in:

- **Practical Skills:**
  - Hands-on practical training in conventional lighting and home automation units
  - Use of smartphones to manage and control a home automation system
- **Analytical and Problem-Solving Skills:**
  - Design, implement and test home automation solutions for a given requirement/application

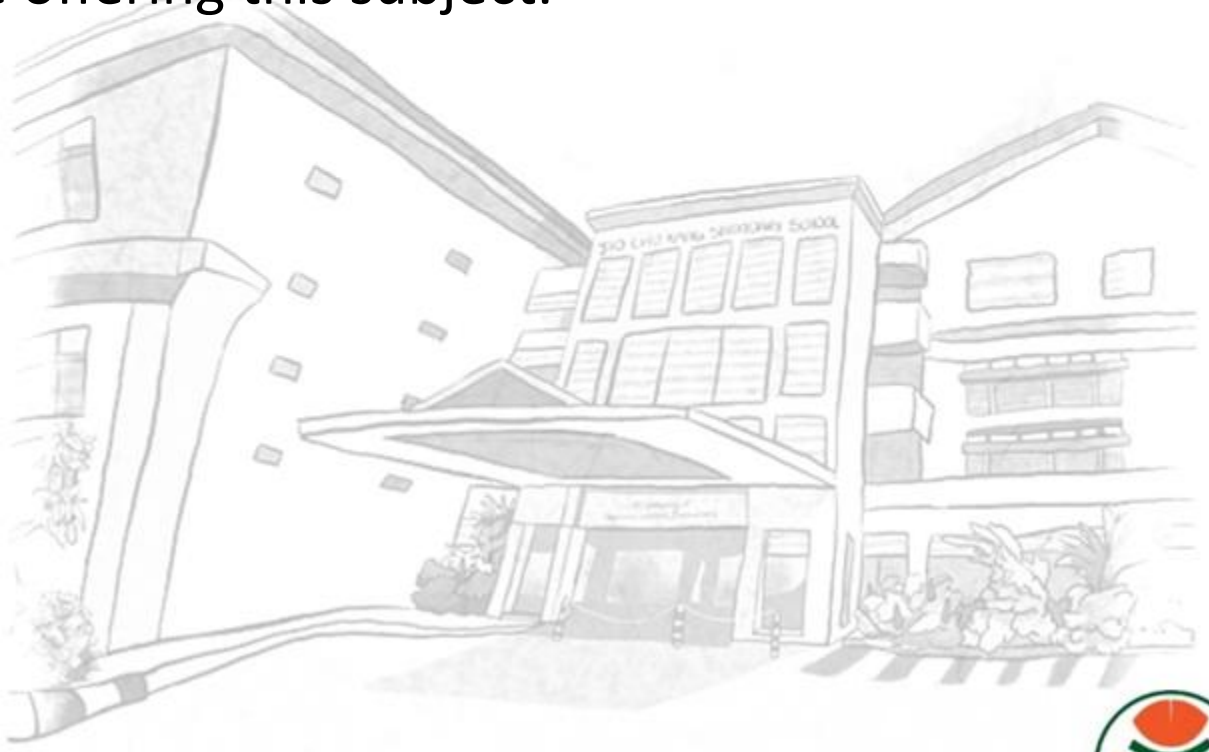
SET – Assessment

Paper	Mode	Duration	Weighting
1	Written Examination	1 hr	30%
2	Practical Examination - Electrical Principles & Conventional Lighting	1 hr 20 mins	30%
3	Practical Examination - Home Automation	1 hr 30 mins	40%



SET – Curriculum Objectives

- MOE-ITE Applied Subject
- Can be used to replace Science for admission to Nitec courses in ITE.
- Currently, only **9** schools in Singapore are offering this subject.



Post-Secondary & Career Options

Institutions**	Courses**
ITE/ Polytechnics	Electrical, Control and Computer Engineering or related fields

- **Career Prospects**
- Electrical Engineer, Programmer, Facility Management Engineer etc.

- -an expert in installing, maintaining, operating, troubleshooting electrical installations, control circuits, electrical equipment and systems in domestic premises, commercial buildings and industrial plants.

Graduates who have acquired two years of relevant experience in the work performed by a licensed electrical worker would be eligible to apply to Energy Market Authority (EMA) to sit for the test leading to the award of an Electrician Licence issued by EMA.

***This list of courses/career prospects is non exhaustive.*

Support for Students (2025)

- **<u>Structured Remedial Programme/ 1-1 Consultation</u>**

  Lower Sec & Sec 3:

  Upon request and arrangements with Subject Teachers

  Sec 4E/5N: Odd Thursdays/ Odd Fridays, 3.00-3.45 pm

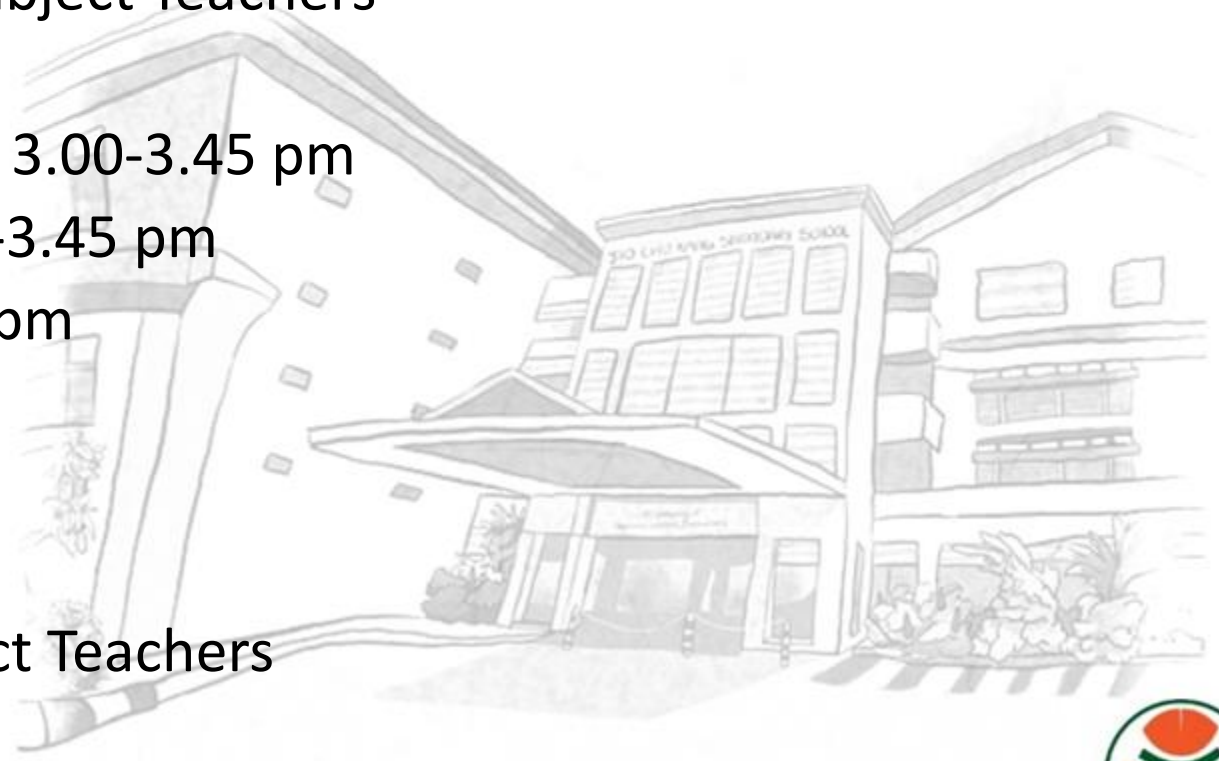
  Sec 4NA: Odd Tuesdays/Thursdays, 3.00-3.45 pm

  Sec 4NT: Odd/Even Mondays, 3.00-3.45 pm

  (to check students' own schedule)

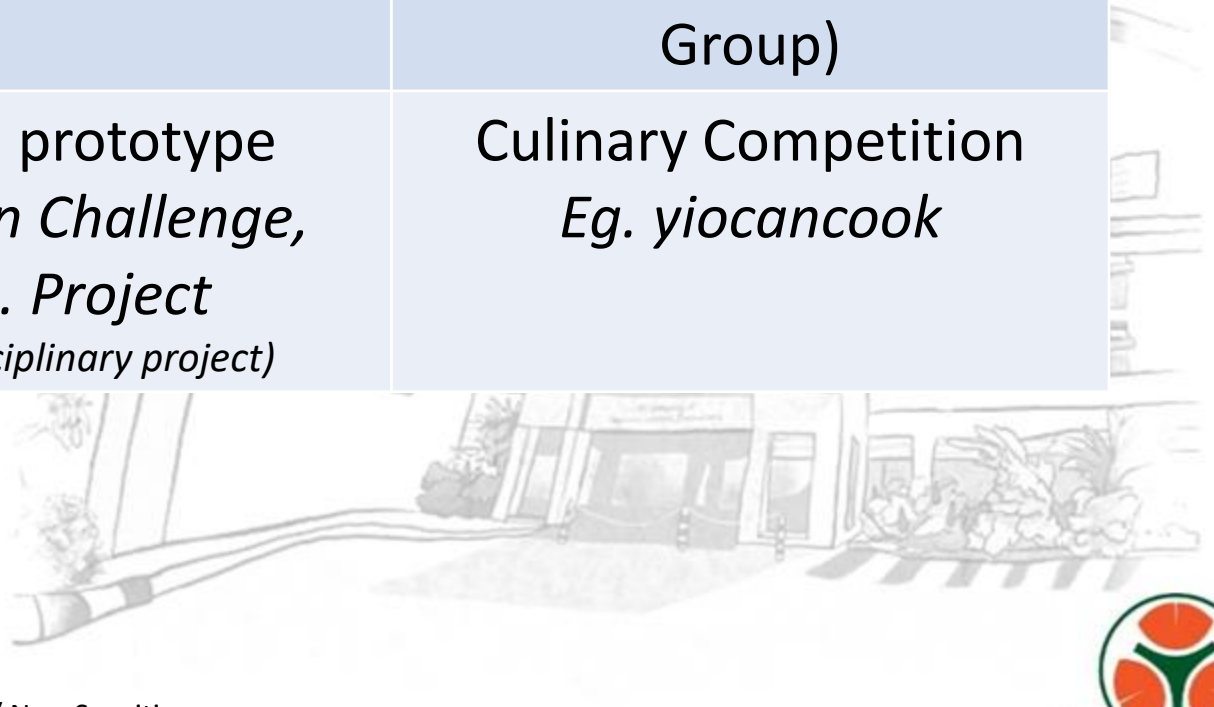
- **<u>June Holidays</u>**

  4E/N(A)/N(T): Arrangements with Subject Teachers



Learning Experiences for Students (2025)

Art	Design & Technology/ ALP	Food & Nutrition
--	STEM Playground Challenges	Home Challenges (in collaboration with National Healthcare Group)
Showcase/School E.g. yckss_*artists*	Create a prototype Eg. *Design Challenge, F.I.T.A. Project* *(a multi-disciplinary project)*	Culinary Competition *Eg. yiocancook*



F.I.T.A. PROJECT: PROBLEM STATEMENTS IN REAL-WORLD CONTEXT

TOWARDS SUSTAINABILITY

Task 1 : Creating renewable energy resources

Identify a location in school where you can Generating electricity from renewable resources, eg water, wind, solar, plants to offset our carbon footprints.

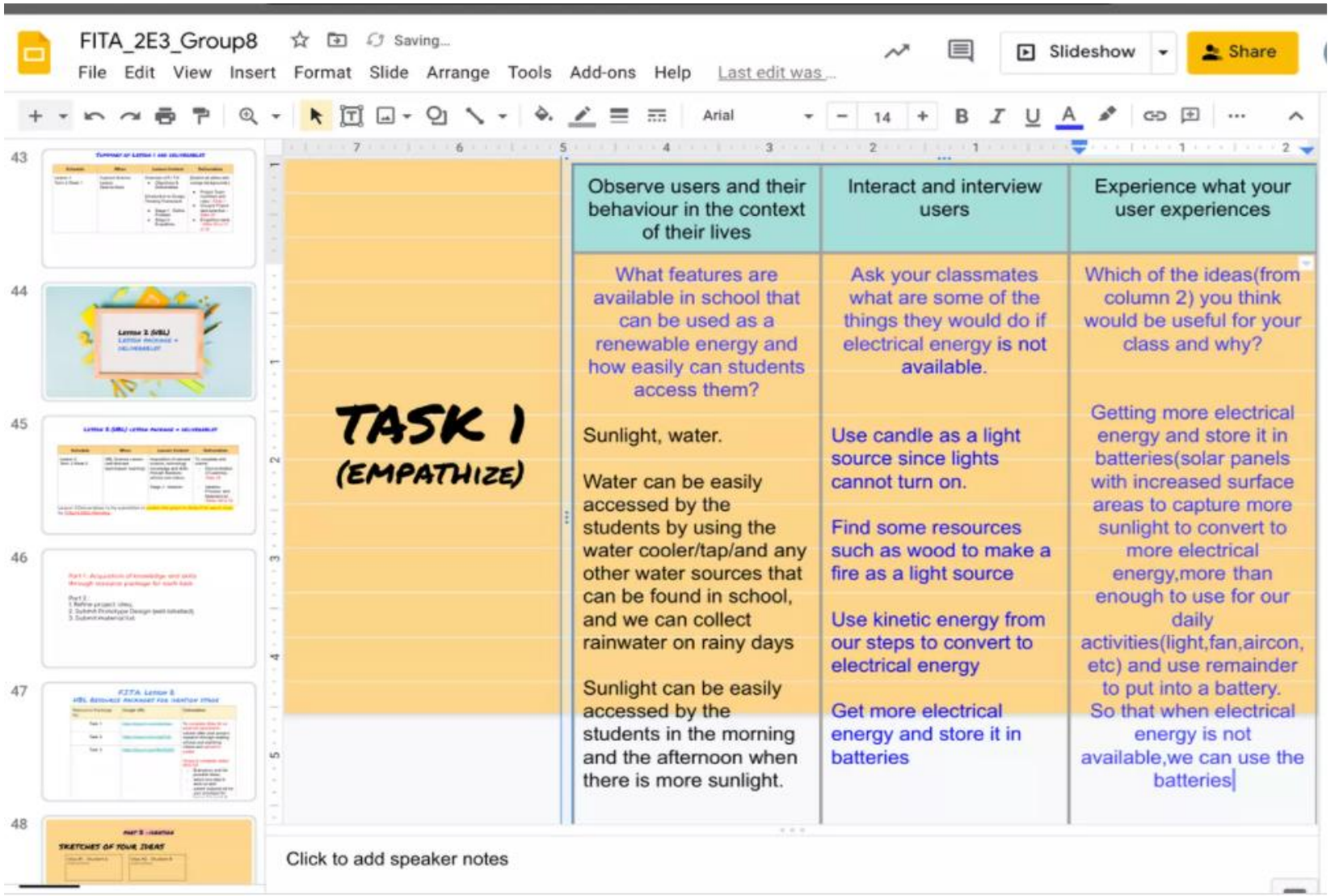
Task 2 : Keeping our classrooms cool!*2023*

Create a prototype classroom to include features that would keep classrooms cool eg. explore cool paints, add greenery etc.

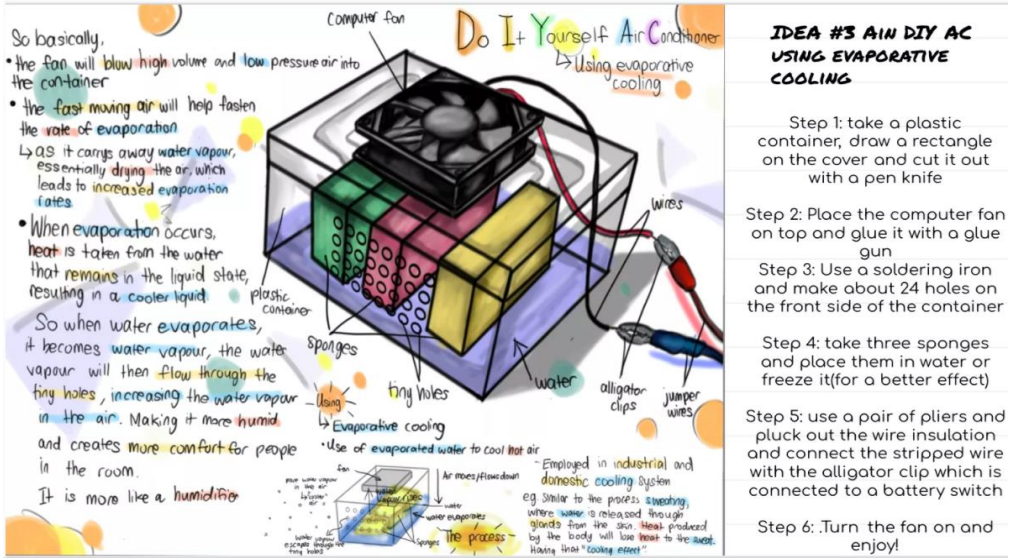
Task 3 : Survival camping kit

Create a survival camping kit to include a device tapping on natural resources as an energy source.

DESIGN-THINKING EMPATHIZE



DESIGN-THINKING IDEATE & PROTOTYE



IDEA #3 AIN DIY AC USING EVAPORATIVE COOLING

Step 1: take a plastic container, draw a rectangle on the cover and cut it out with a pen knife

Step 2: Place the computer fan on top and glue it with a glue gun

Step 3: Use a soldering iron and make about 24 holes on the front side of the container

Step 4: take three sponges and place them in water or freeze it(for a better effect)

Step 5: use a pair of pliers and pluck out the wire insulation and connect the stripped wire with the alligator clip which is connected to a battery switch

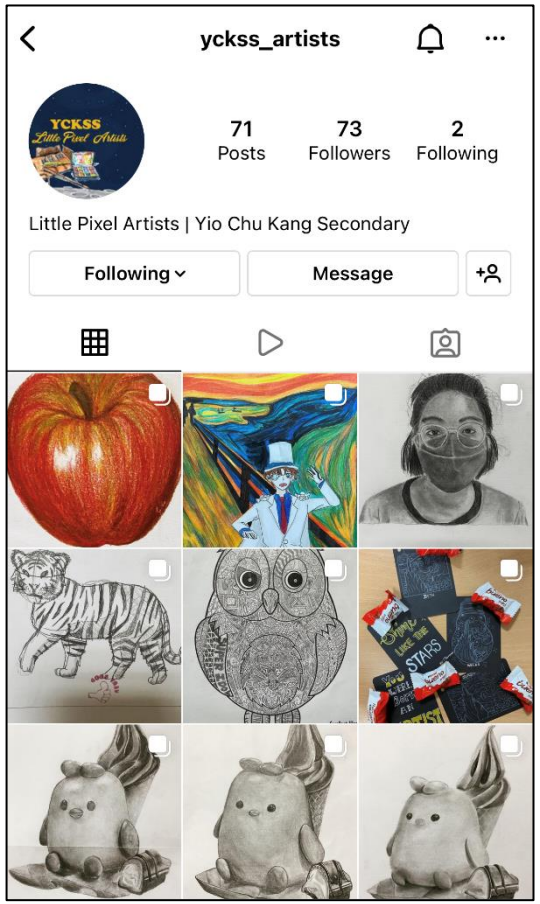
Step 6: .Turn the fan on and enjoy!

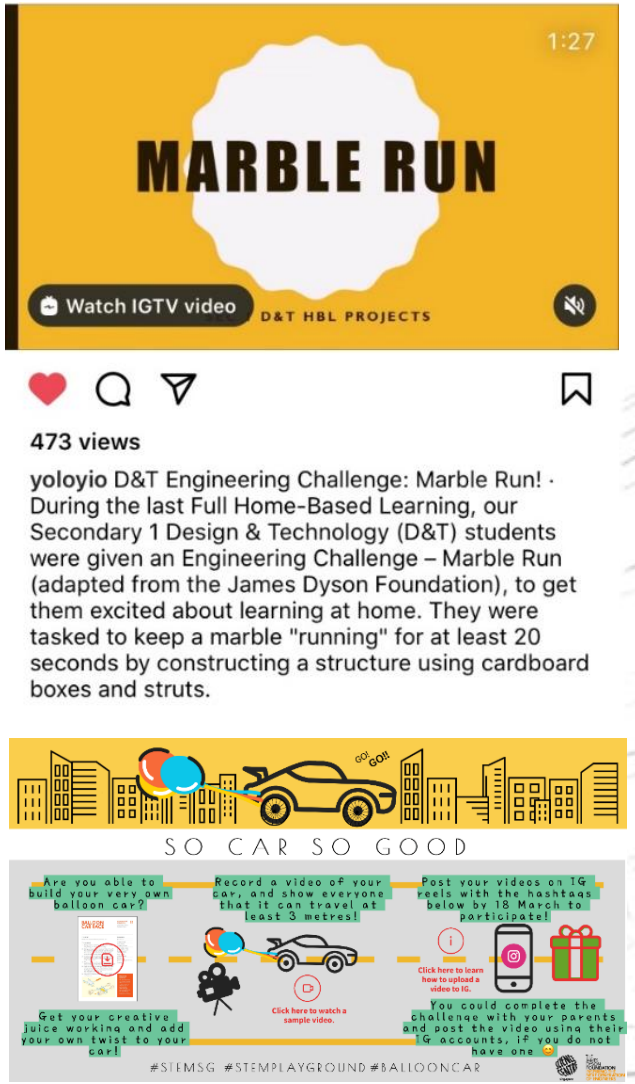
Task 2 prototypes

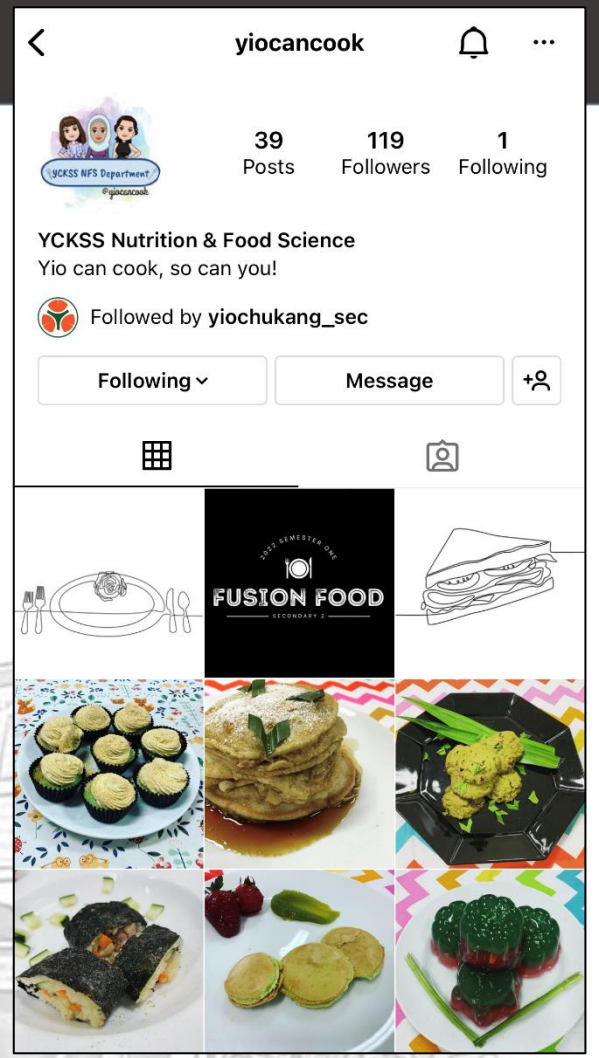
FEEDBACK ON YOUR DESIGN IDEAS

Ideas	Positive Points	Negative Points	Feedback
Idea #1 Charlene's DIY AC	Very effective at cooling , does not use a lot of energy , a good substitute for a air conditioner	Not as energy efficient as it requires electricity from fossil fuels to power the fan and requires a lot of ice cubes as it will eventually melt again	I think that it is a good idea as it is easy to make and helps cool the surroundings , however a different source of energy to power the fan would be more viable.
Idea #2 Sami DIY plant holder	Very eco friendly(using recycled plastic bottles), does not require energy from any source (except for the Sun) , also helps cool the class down , also helps make the class look more alive and colourful-with flowers, does not require a lot of materials, easy to	May attract bugs , Can cause the environment to be more warm and humid , may need constant care–need to water and trim leaves , may require a lot of manpower to make it(as we need a lot of it)	I think that the idea is great , it is eco friendly and has a lot of benefits. However the cost of the plants could be expensive and may attract bugs. But good effort , your research is well done, using the concept of transpiration is very innovative

Caring Innovators







Use of Technology

Art	Design & Technology (D&T)	Nutrition & Food Science (NFS)	Smart Electrical Technology (SET)
Lesson: Student Learning Space (SLS) Assignments: Google Suites, Google Classroom & Google Sites			
Sketchbook App (Sketching)	Showbie App Sketchbook App (Sketching)	Padlet App	Showbie App

Thank you for your kind attention!

For more information, please contact

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HOD Design & Enterprise

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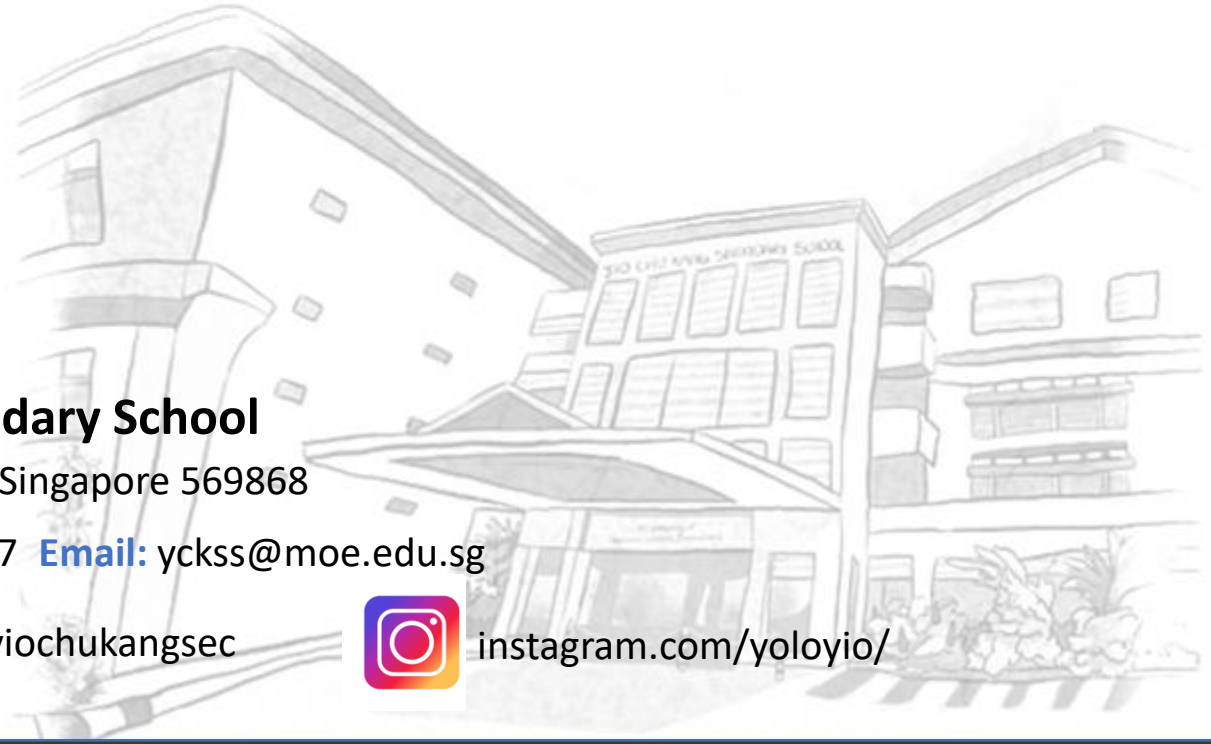

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