



Briefing for **Sec 3NA Subject Combinations**

8 and 15 July 2020

SERANGOON GARDEN SECONDARY SCHOOL
Established in 1959
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Guiding Principles for Sec 3 Subject Allocation

- To enable all students to be given subjects that will allow and prepare them to progress to the **next higher level**, that is, JC, CI, Polytechnic and ITE (Higher Nitec)
- Based on students' **ability** (appropriate level of challenge), **aptitude**, **interest** and **aspirations for post-secondary education**
- Based on **school resources** and students' **take-up rate (viable size)**.



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Criteria for allocation of Sec 3 subjects

- **Students' Choices**
- **Merit - Overall Performance
(Combined results)**
- **School resources**



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2021 Subject Combination for Sec 3NA

(subjected to changes)

Subject				
1	English	English	English	English
2	Mother Tongue	Mother Tongue	Mother Tongue	Mother Tongue
3	Mathematics	Mathematics	Mathematics	Mathematics
4	Combined Humanities (SS/Geo) or (SS/Hist)			
5	Combined Science (Chem/Phy) or (Chem/Bio)			
6	Art	Design & Technology	Food & Nutrition	Principles Of Accounts



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Submission of 2021 Sec 3 Subject Combinations Options (Mid-Year)

The purpose is for Sec 2 students to put in your choices at mid-year.

This is **not** the final selection for your subject combination. At the **end** of this academic year, you will be asked to choose your **final** preferred subject combinations for 2021.

All Sec 2 students are required to register his/her options online via the website <https://sgs.schoolhub.sg> from **16 July (Thu), 12 pm to 20 July (Mon), 5 pm.**

Each student is required to indicate his/her preferred **4 choices**, in order of preference, with the endorsement of his/her parent.

Students will be provided with a **username** and **password**, to be kept confidential and **not to lose** the username as well as password.



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Upper Sec Combined Science (Compulsory)



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Why study Science?

So that you will be able to.....

- Understand what's happening around you



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Why study Science?

So that you will be able to.....

- Evaluate whether claims are true



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Perseverantia



Why study Science?

So that you will be able to.....

- Solve real world problems



The Telegraph

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Lifestyle Health and Fitness

Body Mind Nutrition

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Does this 25 year-old hold the key to winning the war against superbugs?

share Save



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Scheme of Assessment (Combined Science)

- 5105 Science (Physics/Chemistry) OR
- 5107 Science (Chemistry/Biology)

Type of Paper	Marks	Duration	Science discipline(s) assessed
MCQ	20	1 hour 15 minutes	Component 1 <u>(Chemistry)</u>
Structured Questions	30		
MCQ	20	1 hour 15 minutes	Component 2 <u>(Physics or Biology)</u>
Structured Questions	30		



Science (Chemistry) Syllabus (Compulsory)

SECTION	Topic
I. EXPERIMENTAL CHEMISTRY	1. Experimental Chemistry
II. ATOMIC STRUCTURE AND THE MOLE CONCEPT	2. The Particulate Nature of Matter 3. Formulae and the Mole Concept
III. CHEMISTRY OF REACTIONS	4. Acids, Bases and Salts
IV. PERIODICITY	5. The Periodic Table 6. Metals
V. ATMOSPHERE	7. Air
VI. ORGANIC CHEMISTRY	8. Organic Chemistry



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Science (Biology) Syllabus (Choice 1)

SECTION	Topic
I. PRINCIPLES OF BIOLOGY	1. Cell Structure and Organisation 2. Movement of Substances 3. Biological Molecules
II. MAINTENANCE AND REGULATION OF LIFE PROCESSES	4. Nutrition in Humans 5. Nutrition in Plants 6. Transport in Flowering Plants 7. Transport in Humans 8. Respiration in Humans
III. CONTINUITY OF LIFE	9. Reproduction



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Science (Physics) Syllabus (Choice 2)

SECTION	Topic
I. MEASUREMENT	1. Physical Quantities, Units and Measurement 2. Kinematics 3. Dynamics
II. NEWTONIAN MECHANICS	4. Mass, Weight and Density 5. Turning Effect of Forces 6. Pressure 7. Energy, Work and Power
III. THERMAL PHYSICS	8. Kinetic Model of Matter 9. Transfer of Thermal Energy 10. Thermal Properties of Matter
IV. WAVES	11. General Wave Properties 12. Electromagnetic Spectrum 13. Sound
V. ELECTRICITY AND MAGNETISM	14. Current of Electricity 15. D.C. Circuits 16. Practical Electricity



Upper Sec Combined Science

- **Compulsory** subject
- Choose **WISELY**
- Choose a Science combination that you are **interested** in / will be **helpful in the post-secondary course or career** which you wish to pursue
- **DO NOT be blindly influenced** by your friends as everyone has **different strengths, interests** and **career aspirations!**



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Upper Sec Combined Humanities (Compulsory)

A. Compulsory Comb Humanities	with Elective
Social Studies (SS)	Geography OR History



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Concepts in Humanities

- **Causes / Reasons**
- **Consequences / Effects**
- **Processes and Impacts**
- **Change and Continuity**
- **Comparative Significance**



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Geography

Elective Geography

- Physical Geography
 - Living with Tectonic Hazards
 - Variable Weather and Changing Climate

- Human Geography
 - Global Tourism



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Why study Geography

- Builds on students' experiences and prior knowledge to examine the **physical and human phenomena** found on Earth and their **complex interactions and patterns**
- Helps students acquire a range of knowledge and skills to understand and explain the physical and human phenomena



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Why study Geography

- Equips students to become confident people who are able to **contribute in everyday conversations about world issues**
- Equips students with skills of **gathering and analysing information**
- Develops in students **an inquiring mind** to seek answers to issues affecting our lives



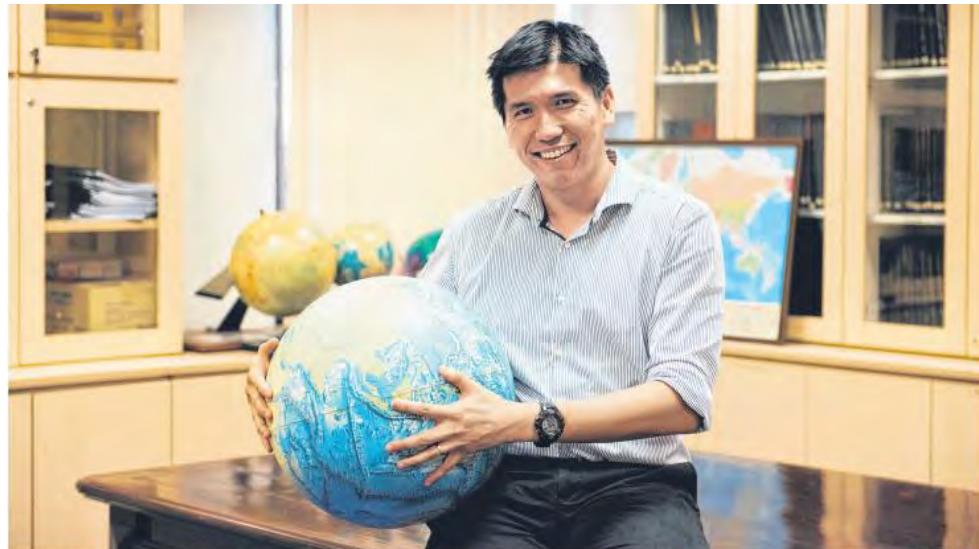
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Relevance of Geography

A spokesman for the Ministry of the Environment and Water Resources said it was pleased that experts from Singapore have been selected to participate in the IPCC's Sixth Assessment Report, noting that the selection was a highly competitive process. "As the IPCC is the authoritative international scientific body on climate change, it is important that its reports include perspectives from all regions – especially South-east Asia and small islands, as we are some of the most vulnerable to climate change," said the spokesman. "In addition, hav-



Assistant Professor Winston Chow said it is an honour to be selected to help with the Intergovernmental Panel on Climate Change report. "It is also a privilege to be a Singapore academic taking part in this prestigious international scientific endeavour," he said. ST PHOTO: LEE JIA WEN

ing experts from Singapore will help to advance discussions on climate research for tropical regions."

Speaking to The Straits Times at his office last week, Prof Chow said it is an honour to be selected to help with the IPCC report: "It is also a privilege to be a Singapore academic taking part in this prestigious international scientific endeavour."

Besides his two brothers, Prof

Chow credits geography teachers at his alma maters – St Patrick's Secondary School and Temasek Junior College – for piquing his interest in weather and climate. It is a topic that has become increasingly relevant today, as the impact of climate change hits home.

Heat waves and more frequent bouts of heavy rain aside, rising sea levels are also an effect of climate



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Relevance of Geography



The coastal Nicoll Drive in Changi was raised by up to 0.8m last year, in anticipation of rising sea levels brought on by climate change. It was Singapore's first road-raising project of its kind. ST FILE PHOTO

Much of the country lies only 15m above the mean sea level, with about 30 per cent of the island less than 5m above the mean sea level.

So the authorities have been preparing early to safeguard Singapore. In 2010, for example, the Building and Construction Authority's (BCA) carried out shoreline restoration works to stabilise a section of the beach at East Coast Park.

Large sand-filled bags were laid several metres into the ground to be level with the low tide, helping to reduce sand erosion.

In 2011, the minimum land reclamation level in Singapore was raised from 3m to 4m above the mean sea level. And last year, Singapore raised the coastal Nicoll Drive in Changi by up to 0.8m.



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History

Elective History

- Modern World History
(Europe and Asia-Pacific)

* Singapore History is **not** included in the syllabus



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Modern World History

History at Sec 3 (Elective)

1. What was the impact of World War I on Europe?

- Treaty of Versailles and its impact
- League of Nations and reasons for its weakness
- Disarmament efforts and impact on the world
- Recovery of Germany after World War I

2. How did Stalin rise to power in Communist Russia?

- Reasons for Stalin's rise to power in 1929
- Impact of Stalin's rule in the 1930s and 1940s

3. How did Hitler rise to power in Nazi Germany?

- Reasons for Hitler's rise to power in 1932
- Impact of Hitler's rule in the 1930s and 1940s



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Modern World History

History at Sec 3 (Elective)

4. How did Fascism arise in Japan?

- Reasons for rise of Fascism and Militarism in the 1930s
- Impact of Fascism in Japan in the 1930s

5. Why did World War II break out in Europe?

- Reasons for outbreak of war in Europe in 1939
- Reasons for Germany's defeat in Europe in 1945



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Modern World History

History at Sec 4 and 5 (Elective)

6. Why did World War II break out in Asia-Pacific?

- Reasons for outbreak of war in Asia-Pacific in 1941
- Reasons for Japan's defeat in Asia-Pacific in 1945



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What are the skills you can acquire through History/Geography?

Critical thinking skills

- Ability to **evaluate evidence**
- Exercise **sound reasoning** to arrive at **reasoned conclusions**

Communication skills

- Generating and sharing of **perspectives and opinions**
- Engaging in debates about **comparative significance**

Language and writing skills

- Ability to **formulate arguments** and **construct explanations effectively**



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What are the skills you can acquire through History/ Geography?

Other lifelong skills:

- Acquire knowledge of **global issues** and **current affairs**
- Develop maturity by understanding how the world works and **why certain decisions are made**, with **historical empathy**
- Appreciate and **value multiple perspectives**
- Understand **ambiguity** and exercise **sound evaluation across different situations**



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Higher Order Skills for JCs and Polytechnics

- **Inquiry and Research Skills** for Inquiry-based projects
- Presentations
- Class Discussions
- Argumentative Essays in General Paper
- Training in **critical thinking** and **sound reasoning**



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What kind of jobs can you expect as a Humanities student?

- Most public sector (civil service) jobs require:
 - Good writing
 - Critical thinking skills and analytical abilities
 - In-depth understanding of current affairs
 - Ability to manage and appreciate differing perspectives
- Companies with global operations (e.g. Shell, Mitsubishi, Ernst & Young) require:
 - Critical thinking skills and analytical abilities
 - In-depth understanding of current affairs
 - Capability to appreciate differing contexts across countries and cultures



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What kind of jobs can you expect as a Humanities student?

- Employment opportunities will be available in Ministries such as:
 - **Security:** Home Affairs, Foreign Affairs, Defence
 - **Social:** Education, Social & Family Development, Culture, Community & Youth
 - **Economic:** Transport, National Development, Finance
- Government Statutory Boards
 - People's Association, National Heritage Board & the museums, National Library Board, the polytechnics and the universities
- Embassies in Singapore and overseas



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- Private sector
 - **Business Services:** Public Relations, Marketing, Advertising, Tourism Management, Mass Communication, Human Resource
 - **Corporations:** SIA, Shell, Mitsubishi, Ernst & Young, Ogilvy, etc.



Ms Elizabeth Tan
Founder
Heatwave Shoes



Mrs Julia Hang
Director for Corporate Communication
Press Secretary to Minister
Ministry of National Development



Mr Alvin Koh
Diplomat
Ministry of Foreign Affairs



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Art

(Elective Subject)



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Elective Subject: Art



■ **Not merely to be an artist, one is trained to have
*multi-artistic skills for the future***

■ 21st century prospects

- Visual Literacy
- Critical and Inventive Thinking
- Confident Person
- Visual Communication & Design



Ultimately 'N' level art is designed to build the fundamentals of your **ARTISTIC SKILLS & PORTFOLIO** for tertiary studies



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SGS ART LEARNING

Beyond classroom learning

- 1) NAFA/ LASALLE Open House
- 2) Museums learning journeys
- 3) Nanyang Polytechnic IDM day
- 4) Art workshops with artists
- 5) Competitions



SGS ART ACHIEVEMENTS

- 1) 2014 - 2018 Bi-annual SYF Art Exhibition
- 2) 2014 - 2018 Annual Art Exhibited at AMK Library
- 3) 2017 Yellowren Arts Festival – Honourable Mention
- 4) 2017 Make The Change (MTC) Competition – Best Design and Most Creative
- 5) 2018 Make the Change (MTC) Competition – Judges Choice Award



2017 SYF Motif Design Competition

- 8 art students from Sec 2 and 4 Express took part in this year's SYF Motif Design Competition with the theme "Youth HeARTs".



FUTURE PROSPECTS

Local Art Related
Occupations



ARTIST



ANIMATOR



JUNE YAP
Curator, Guggenheim IBS MAP Sotheby's Initiative

CURATOR



**FASHION
DESIGNER**



ART TEACHER



**PHOTO-
GRAPHER**



**INTERIOR
DESIGNER**

ARCHITECT

Singaporean Roger Lee lights up hit Disney movie Frozen



Mr Roger Lee (above) in the Walt Disney Animation Studios in Burbank, California. He had a hand in lighting up the scenes in Frozen, which features snowman Olaf and is No. 1 at the US and Singapore box offices. -- PHOTO: WALT DISNEY STUDIOS MOTION PICTURES, SINGAPORE

“

...Mr Lee is particularly proud of adding his touch on a 22-second sequence where the ice palace is bathed in a sea of red as Queen Elsa struggles to suppress her powers of conjuring ice and snow... "... I was lucky enough to light the entire sequence myself. Usually for such long sequences, you have a few artists working on it," said Mr Lee, a graduate of Ngee Ann Polytechnic's Film, Sound and Video course.

”



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Credits to: <http://stcommunities.straitstimes.com/movies/2013/12/18/singaporean-roger-lee-lights-hit-disney-movie-frozen>

Ex-Student: Arvin's Journey (Poly Yr 2)

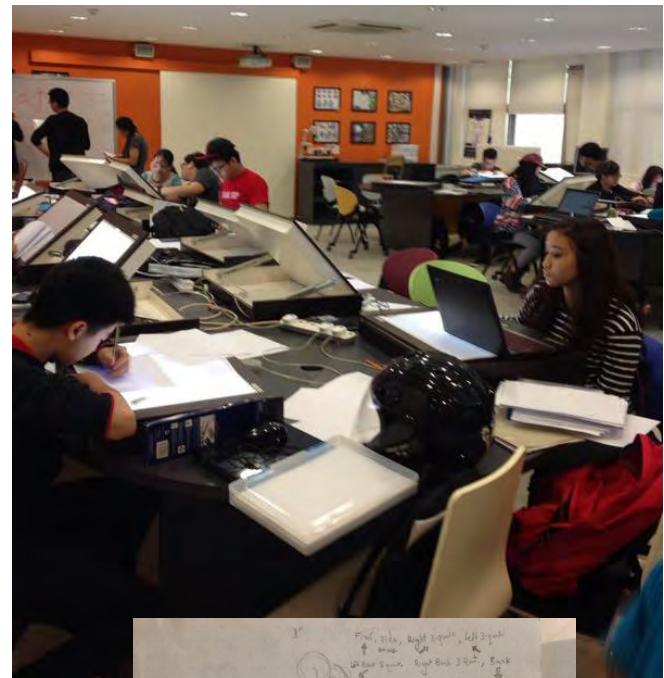
I'm studying [digital animation in Singapore Poly](#) :)

Secondary art education helped me in creating my portfolio for presentation to my course lecturers as well as prepared me with the foundations of art (EOA) such perspective drawing, shadings and shadows.

My lessons related to art are conducted in 3 different locations. A computer lab for when we do 'maya', our 3-d modelling module, as well as photoshop. Then we have traditional animation where we learn to animate like Miyazaki. It's held in a place we call the forge (refer to image on the right).

We are trained to be pipeline production workers similar to how in the production of a movie, there's the pre production, production and post production. Careers are found in production houses who do animations for almost anything there's no specific. But then there are companies like Disney, Blue sky, Dreamworks they have an independent system that's different from standard production houses. Thus you have to be headhunted by their scouts or if you have a friend who can get you an internship.

This is a sum of what I know about my course and it's career insights. There's still quite abit more about the course that I am still in the midst of learning.





Ad Man
Journalist
Effects Specialist
Filmmaker

Advertising & Public Relations
Digital Visual Effects
Film, Sound & Video
Mass Communication

Temasek
POLYTECHNIC

School of Design



[Home](#) > [Courses](#) > [Full-time Courses](#) > [Diploma in Environment Design \(T46\)](#)

Diploma in
Environment
Design (T46)

Career
Opportunities

Diploma in Environment Design (T46)

You are someone who lives in a world where a comfortable and designed lifestyle has become more a necessity than a luxury. You are an out-and-moving person who believes that our landscapes and open public spaces can actually be so much better designed. You have the

NOTABLE FEATURES

- The first and only environment design diploma

Diploma in Advertising & Public Relations (N87)

Top-notch production facilities that simulate the industry environment, including one of Singapore's largest green screen studios

Semester-long projects and internships will expose you to the latest industry trends

Build your own creative portfolio and show reel

The only poly course to integrate Advertising and Public Relations (PR), two of the most crucial marketing communication tools

Agency-based learning allows you to work on challenging "live" projects while being mentored by top Advertising & PR gurus

Diploma in Film, Sound & Video (N82)

Singapore's first and most established filmmaking course

Our students, alumni and staff have won numerous awards and accolades at top international and local film festivals

Work with top-notch equipment and facilities, including a High Definition (HD)-ready studio, HD digital cinema and film cameras, surround sound mixing and multi-track recording studios

POLYTECHNICS WITH ART RELATED COURSES

Nanyang Poly, Temasek Poly, Ngee Ann Poly, Republic Poly & Singapore Poly



[Home](#) > [Courses](#) > [Full-time Courses](#) > [Diploma in Retail & Hospitality Design \(T47\)](#)

Diploma in
Retail &
Hospitality
Design (T47)

Career
Opportunities

Diploma in Retail & Hospitality Design (T47)

Whether it is an up-scale hotel or resort, snazzy bar restaurant, happening entertainment hub, swanky boutique or cutting-edge showroom, this course develops your design

NOTABLE FEATURES

- The first and only design course specializing in retail and hospitality interior design in a polytechnic.

E.g.: NYP: Digital Game Art & Design, TP: Diploma in Comm Design, Diploma in Interior Architecture Design, RP: Media Production & Design, SP: Visual Effects & Motion Graphics, NP: Diploma in Arts Business Management

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ART SCHOOLS & ART COURSES

NAFA courses:

NAFA Foundation Program (After N'level)
Diploma in Art Teaching (Scholarship)
Diploma in Graphic Design
Diploma in Fashion
Diploma in Design etc.



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The LASALLE Show '11 - Diploma in Animation Art

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The LASALLE Show '11 - Diploma in Animation Art

Course Details >>

Lasalle courses:

Diploma in Animation
Diploma in Fashion
Diploma in Fine Arts
Diploma in Interior Design etc.

Ex-Student: Liyana's Journey (Admission to Nafa)

I am taking Fashion Design in NAFA and my lessons starts next week.

In order to qualify, I had to sit for admission tests. I sat for both Fine Arts and Fashion Design. During the tests I am expected to complete 3 task in 3 hours. I finalized on these two courses as I am interested to further my studies in either one. My journey during coursework has equipped me with the fundamentals of drawing figures and faces of people and being experimental with mediums.

Fine Arts – drew my hand in 3 different angles, referring to magazines as sources of inspiration to create another work and lastly, write a short write-up on the art pieces that I drew.

Fashion Design: I had to illustrate a gown, cocktail dress or street wear, sewing techniques & essay on personal style or career plans upon graduation.

I hope these breakdown is helpful for the juniors! ☺



Elective Subject: Art

OUR REQUIREMENTS ?

The following are the criteria we are looking for in a
potential ART STUDENT...

❖ Required *Attitude*

- ❖ Interest/Passion
- ❖ *Commitment (Time & Effort)*
- ❖ Skillfulness (Can be trained)
- ❖ Curiosity and boldness (Open-minded)



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Elective Subject: Art

'N' LEVEL ART EXAMINATION

Paper	Weightage	Requirement
Paper 1: Coursework	60%	Compulsory
Paper 2: Drawing and Painting	40%	Choose one out of the two papers
Paper 3: Study of Visual Arts		



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Preparatory Work & Final Art Work



Final art work



Final art work



O level : 8 A2 prep work
N level : 5 A2 prep work



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Food and Nutrition

(Elective Subject)



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Elective Subject: Food and Nutrition [6072]

Subject Name

	Lower Sec	Upper Sec
Subject	Food and Consumer Education	Food and Nutrition
Where We work		

Where We work

	Lower Sec	Lesson Type
Venues	Food Lab 1 [F01-03]	Practical
	Food Lab 2 [F01-04]	
	Project Room [F01-05]- depending on class size	Theory/ Coursework
	Computer Labs	Coursework



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Elective Subject: Food and Nutrition [6072]

Aims and Objectives

- To provide students with knowledge and skills, and inculcate in them positive attitudes that will empower them to make informed food and consumer choices in their daily life.
- Students are expected to demonstrate the ability to apply the nutrition and food management for healthy living.
- Students are able to demonstrate several culinary skills and evaluate on products via food chemistry



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Elective Subject: Food and Nutrition [6072]

2 years course of study: Upper Sec

- Culinary Skills
- Food Chemistry
- Nutrition and Diseases
- Food Technologies
- Coursework Skills



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Elective Subject: Food and Nutrition [6072]

Curriculum Time

- MOE recommendation:
Minimum 2.75 hours per week

Teaching Approaches

- Problem –Based Learning to enhance independent learning
- Differentiated Instruction, e.g. online learning, learning journeys, competitions, videos, group activities, etc .



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Elective Subject: Food and Nutrition [6072]

Achievements

- **Top 10 Finalist for Ichef [2014 - 2016 and 2018]**
- **Collaboration with TOUCH Diabetes (2016 – 2019)**
- **4th Place for APS Challenge [2015]**
- **Champion and 2nd Place for Lam Soon Sandwich Making Competition (2014)**
- **Champion for Truly Singapore Ice cream Making competition by NYP and Swensens (2015)**
- **Champion for RGS Naturel Cook off (2014)**
- **Champion for Lam Soon Sandwich Making Competition (2014 - 2019)**
- **Champion for APS Challenge Baking Competition (2014)**



Rojak ice cream weird but wonderful



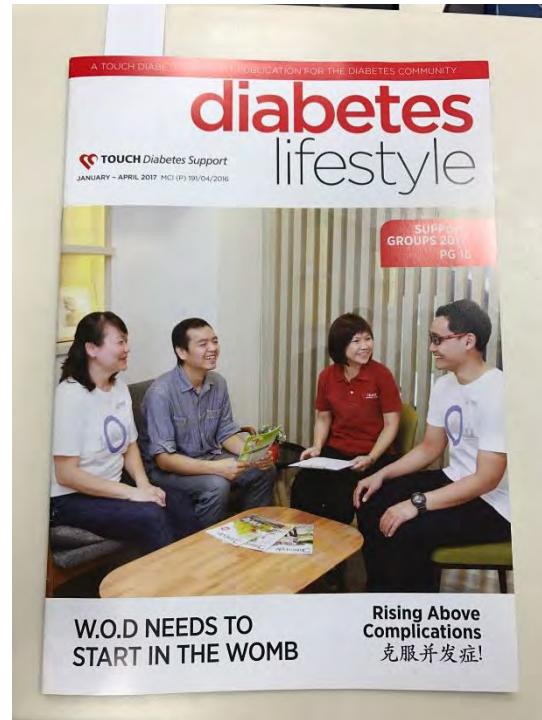
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A gist of students' work

(Nutrition & Food Science)



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Relevance in the Food Industry / Real World Context

ST SINGAPORE POLITICS ASIA WORLD VIDEOS MULTIMEDIA LIFESTYLE FOOD FORUM OPINION

SINGAPORE > Courts & Crime Education Housing Transport Health Manpower Environment

Minister says research into Asian cuisine can offer Singapore businesses 'competitive edge'

Melissa Lin 

Eating rice with tofu, instead of other protein-rich food like chicken, fish or egg, works best in bringing down blood glucose levels.

This has been among the findings made by the two-year-old Clinical Nutrition Research Centre during the last six months.

A joint initiative by the Agency for Science, Technology and Research (A*Star) and the National University Health Systems, the centre specialises in human nutritional research, which Finance Minister Heng Swee Keat believes can help small and medium-sized enterprises (SMEs) here to stand out from their competition.

Singapore

COVID-19 pandemic highlights importance of strengthening Singapore's food security, say experts



SINGAPORE > Courts & Crime Education Housing Transport Health Manpower Environment

Recommended by PROFOUND

Singaporeans adopting better diets, easing up on calories: Survey



Sugar intake went up from 50g a day in 2010 to 60g, or about 12 teaspoons, this year. The World Health Organisation's recommendation is 25g a day. PHOTO: AFP



ST VIDEOS 



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Elective Subject: Food and Nutrition [6072]

Assessment

Exam Component	Food and Nutrition 'N' Levels
Written Paper	40% [80 marks] (1.5 hour paper)
Coursework	60% (30 pages)



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Popular Courses in Polytechnic (Nutrition & Food Science)

Polytechnic	Course / Diplomas	DPP
Nanyang Polytechnic	Food Science and Nutrition	DPP: 11 points EL:3, Maths:3 F&N:3 and two other
Temasek Polytechnic	Food and Sciences/ Applied Science and Nutrition Baking & Culinary Sciences Consumer Science and Technology Hospitality & Tourism Management	
Republic Poly	Biotechnology Sports, Health and Leisure Restaurants and Culinary Operations Hotel and Hospitality Management Healthcare Administration	
Singapore Polytechnic	Food Science and Technology Nutrition, Health and Wellness	



Elective Subject: Food and Nutrition [6072]

ITE/ Other Options

Organization	Courses
ITE	<p>Nitec</p> <ul style="list-style-type: none">-Pastry and baking-Food and Beverage Operations-Asian Culinary Arts-Applied Food Science-Western Culinary Arts <p>Higher Nitec (O levels/ DPP)</p> <p>-Hospitality Management</p>
Shatec	Culinary
Sunrice	Culinary

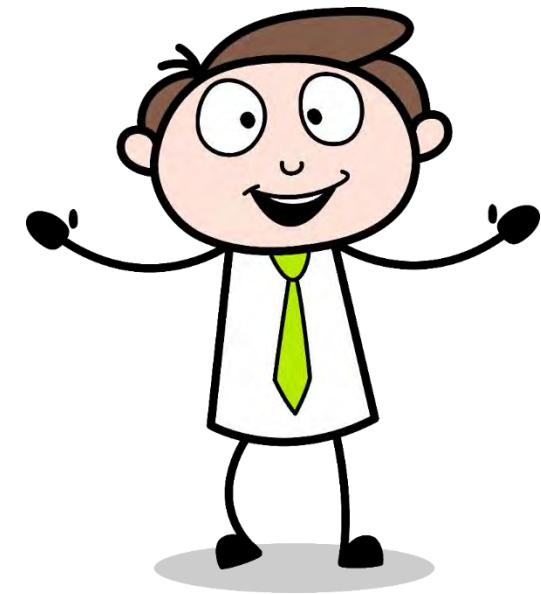


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Design & Technology Syllabus (7055) (Elective Subject)



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Aims of D&T

Design & Technology places great emphasis on the discipline of design awareness, appreciation of function, aesthetics and technology in design.

It aims to promote **problem solving** design activities and to develop appropriate **technical and graphical skills** to realize solutions in design problems.

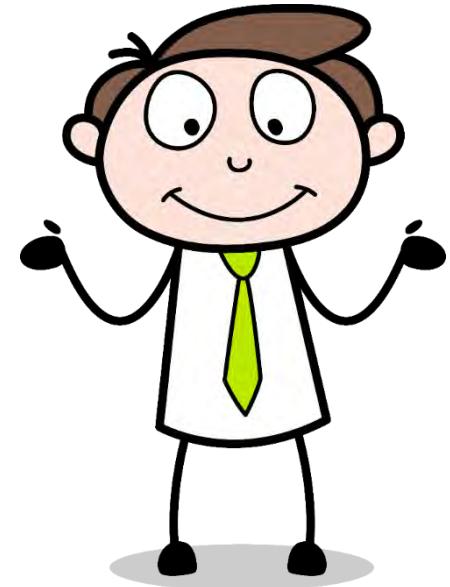


Subject content (D&T)

The subject content is organised into two sections, namely:

Section 1: Design

Section 2: Technology



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Assessment (D&T)

Paper	Description	Duration	Marks	Weighting
1	Written Paper	1.5 hours	60	40 %
2	Design Project	20 weeks	60	60 %



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Design Project

The design project comprises four components

- Design Journal
- Presentation Board
- Mock-up
- Prototype

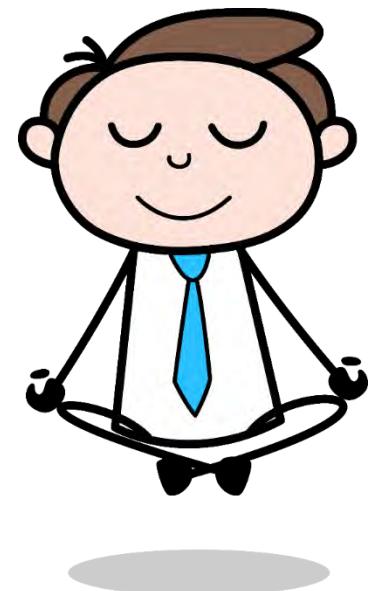
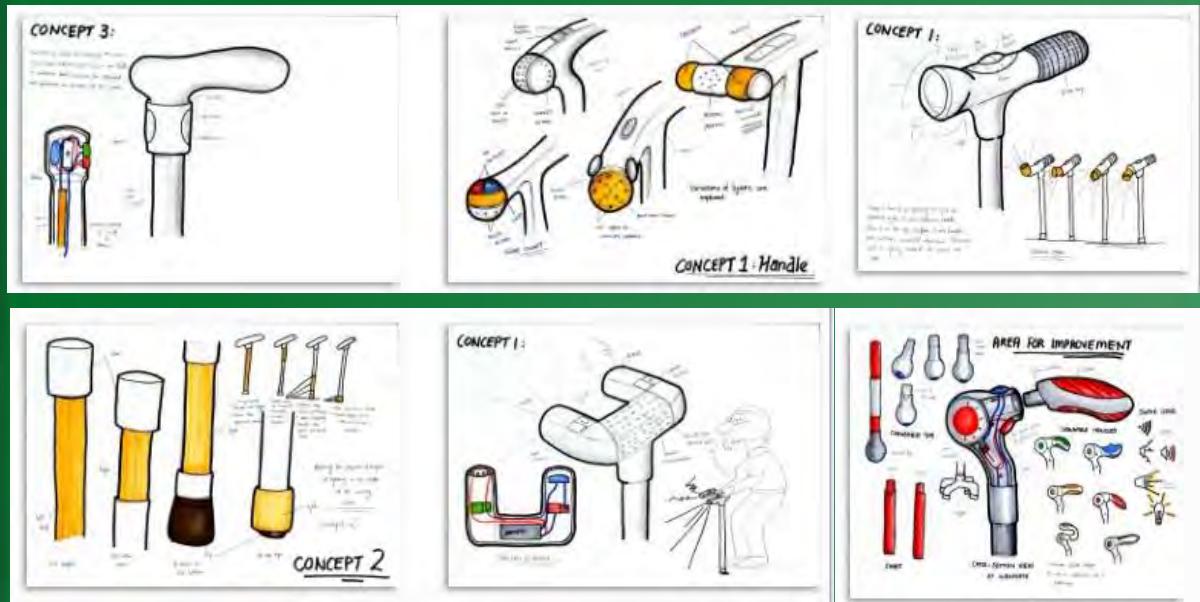


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Design journal



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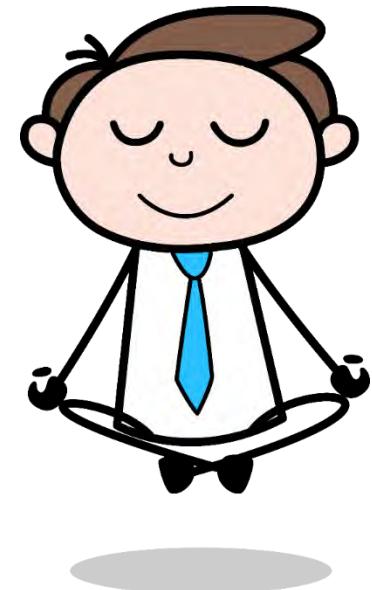
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Presentation boards

The image shows three presentation boards for a "Orange cutter" project, displayed in a wooden frame. The boards are organized into sections:

- Orange cutter .**
- Problem Situation**: A young brother wants to learn to cut oranges but it's dangerous. The board includes a photograph of a child holding an orange.
- Design Brief**: To design and make a product that will allow children to cut oranges.
- Concept Sketches**: Hand-drawn sketches of various designs, including a simple box-like structure and a more complex mechanism.
- Orange cutter .**
- Design Specifications**:
 - The product should be **user-friendly**.
 - There should be a handle with a firm grip.
 - The colours used should be **more attractive to the children**.
 - There should not be any sharp edges, as the child might injure himself/herself.
 - The product should be **water proof**, so that the user can wash it after use.
- Evaluation**: Includes photographs of the orange cutter being used and a quote from Jonathan, 8 years old, who found the handle comfortable.
- Orange cutter .**
- Presentation Drawing**: A 3D rendering of the final product, showing an orange being cut.
- Working Drawing**: Technical drawings of the product's dimensions and assembly.
- Exploded View**: A diagram showing the product's components and how they fit together.

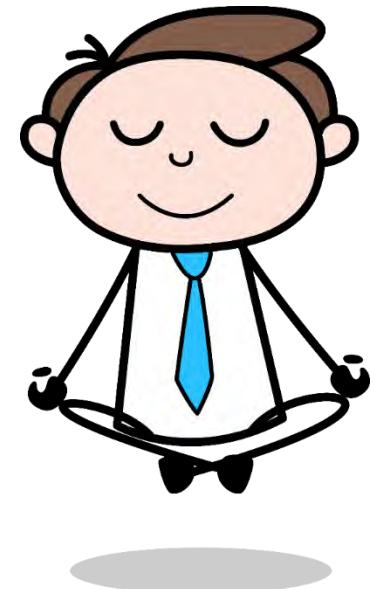


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Prototype



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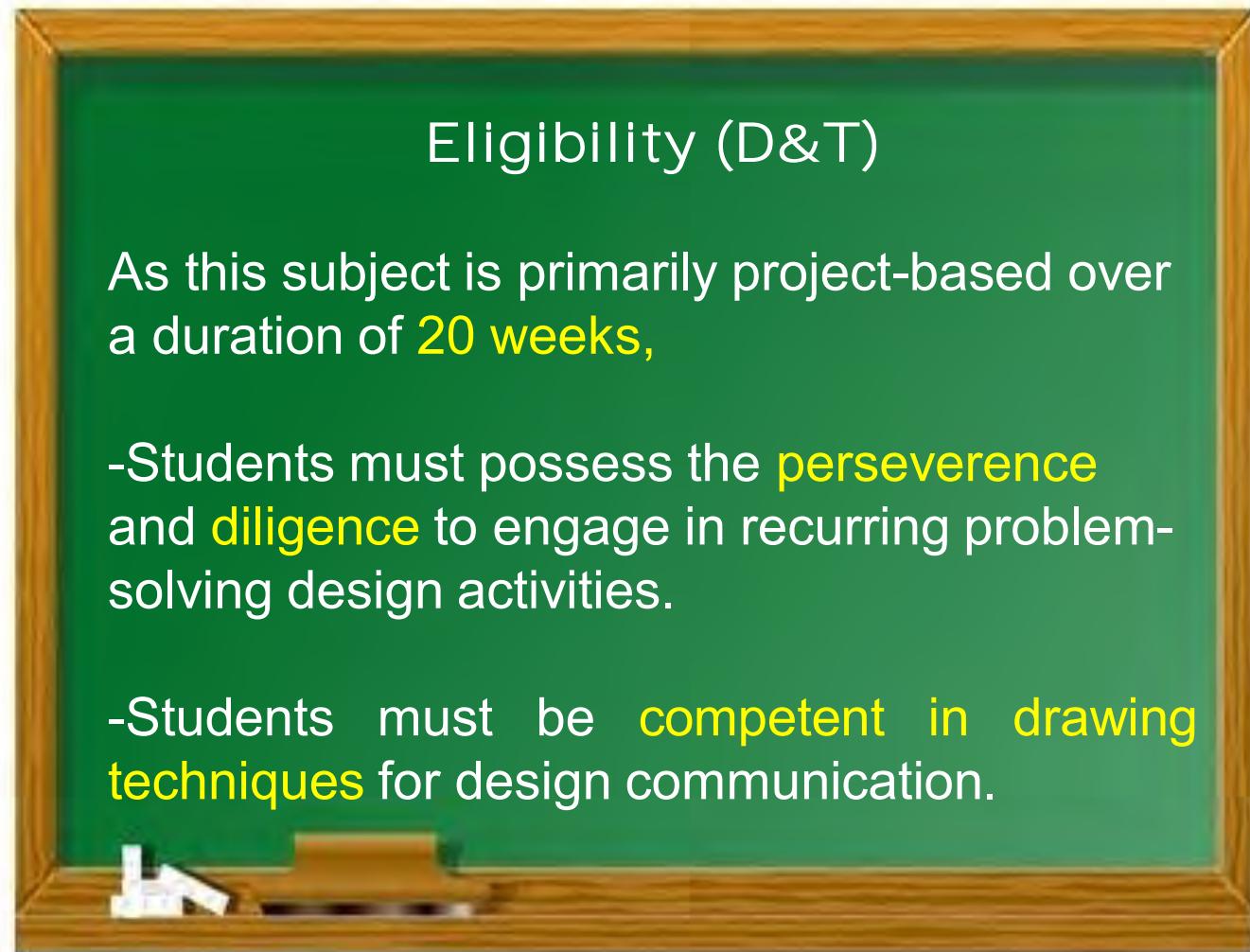
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Eligibility (D&T)

As this subject is primarily project-based over a duration of 20 weeks,

- Students must possess the **perseverence** and **diligence** to engage in recurring problem-solving design activities.

- Students must be competent in drawing **techniques** for design communication.



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Career Prospects

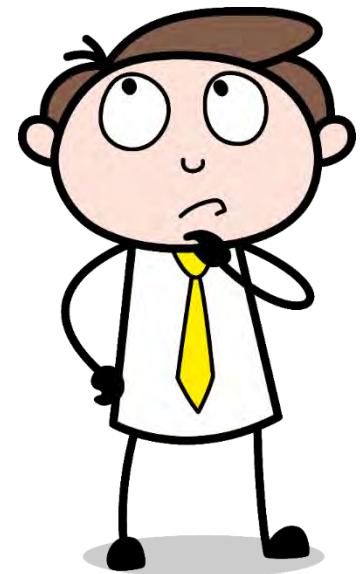
Possible career opportunities in the following industries:

Art & Design (e.g. Product designer)

IT (e.g Web designer)

Construction (e.g Architect)

Manufacturing (e.g. Manufacturing Engineer)



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Principles of Accounts

(Elective Subject)



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Accounting involves

- the recording and processing of business transactions
- communicating of information to stakeholders.
- evaluating business performance and facilitating decision-making.



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Principles of Accounts (POA)

Read, understand and analyse financial accounts

- Strong Mathematics foundation is important, to manage **complex mathematical tasks** such as calculating depreciation and compound interest.
- Hence, you will need to like numbers and love working with numbers, using calculators.



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Principles of Accounts (POA)

Explain concepts and their application in real-world scenarios

- Good command of English is required for theory questions.
- Given a set of financial results, you will need to analyse them (e.g. ***give reasons and recommend measures for future***).



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Principles of Accounts (POA)

Represent data accurately and meaningfully

- Formats are involved, which require subject discipline
- You need to know where to put specific numbers, understand data and represent them (e.g. *your Chemistry marks are inserted into your Combined Science results, your EL oral marks are inserted into your EL results*).



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Principles of Accounts (POA)

- In summary, POA consists of 3 components:
 1. Format – *under which subject do you **insert** your EL oral marks **information**?*
 2. Mathematics – *how do you **calculate** your overall EL marks?*
 3. English – ***explain reasons why** you possibly did well and **explain methods how** can you improve your overall EL marks?*



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THANK YOU



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