



SECONDARY 4 CURRICULUM PACKAGE



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Established in 2010



Proven Track Record

PSLE- 92% AL1-AL3

O Lvl- 94% A1/A2

A Lvl- 93% A/B



No Registration or Material Fee

Specialised notes are provided by us for!



Personalised Progress Report

Our progress reports after each class allow you to keep track of what your child learns in class, as well as tutor's analysis of your child's strengths, areas for growth, and learning habits to maximise your child's potential.



Digital Whiteboards

No more fumbling through notes or confusing recaps. Besides, can you un-erase a traditional whiteboard?



THE EDUZ FACTOR



Efficient Communication Process

Our admins and teachers work hand-in-hand with parents to ensure our students progress. We also go an extra mile to assist you with your child's concerns about studies.



Our EduZ Teachers

Most of our teachers have at least 7 years of teaching experience. This ranges from current school teachers to ex-school teachers who have joined us as full-time tutors.



EduZ Tuition Woodlands- Quality Educat...

4.8 ★★★★★ (31) · Educational institution

306 Woodlands Street 31, #02-35

Opens 2 pm · 9062 5285

Online classes



EduZ Tuition CCK - Quality Education fo...

4.9 ★★★★★ (58) · Education center

223 Choa Chu Kang Central, #01-237B Block 223

Opens 2 pm · 9797 3786

On-site services · Online classes

EduZ Tuition Admiralty - Quality Educati...

4.9 ★★★★★ (61) · Education center

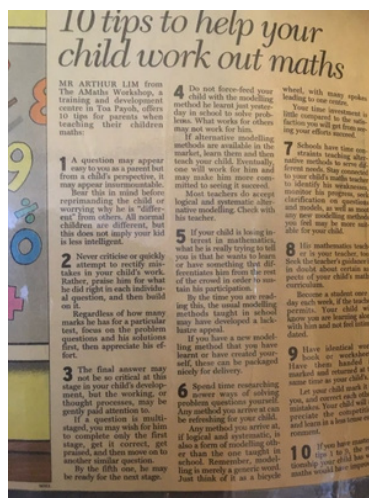
736 Woodlands Cir, #01-513

Opens 2 pm · 8940 7170

On-site services · Online classes

THANK YOU FOR TRUSTING US WITH YOUR CHILD'S ACADEMIC EXCELLENCE

Newspaper



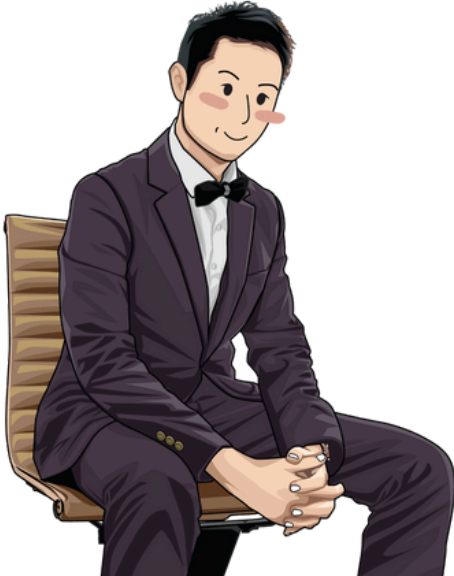
LISTED
on Rating.sg



Best in Singapore



SOME OF OUR EDUZ TUTORS



Dave

More than 12 years teaching exp
Ex NYJC teacher
Nanyang Scholar
1st Class Honours



Johnathan

More than 12 years teaching exp
Ex NYGHS, TMJC teacher
Nanyang President Research
Scholar
1st Class Honours



Cherry

More than 5 years teaching exp
Primary Level Head
Overall coordinator of
EduZ Primary School Notes



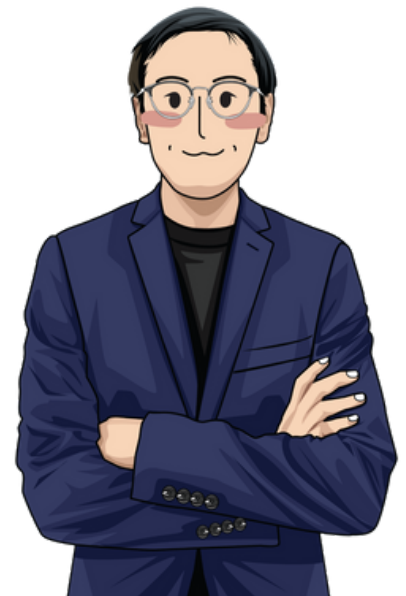
Wei Quan

More than 7 years teaching exp
Full time private tutor
Overall coordinator of EduZ
Secondary School Notes



Yu 老师

More than 20 years of teaching exp
Overall coordinator of the
EduZ Chinese Program



Gerald

More than 8 years teaching exp
Full time private tutor
Overall coordinator of
EduZ Primary School Notes

Some Reviews



B

4 reviews · 1 photo



★★★★★ 2 months ago

Have good experience sending my girl to this branch for Primary Math in 2023. Teacher Gerald is very good at identifying the topics my girl is not confident with. He helps her to build the concept foundation and then her confidence on complex questions step-by-step. Her Math results improve and becomes more consistent at year end and PSLE. Not forgetting to mention, the centre admin Jodi, in EduZ Tuition CCK branch is always very friendly, flexible and understanding when handling admin matters. I'm very happy to find this tuition centre that both my girl and me are comfortable with.



Local Guide · 265 reviews · 1192 photos

★★★★★ a year ago

Conveniently located in Choa Chu Kang with a 5 minutes walk from the MRT station or perhaps less than 3 minutes walk from South View LRT.

The teachers here are patient and nice.



1 review

★★★★★ 5 days ago

NEW

airconditioned, clean and have a huge monitor screen so that everyone can see the words. Teachers and staff are friendly and very swag. They very understanding also.



A

2 reviews



★★★★★ a month ago

My Son sec4 express, he start tuition of the Pure Chem, Pure phy, Emath and English on Nov 2023, the teacher are friendly and teach in line as what school teach, my son very happy to have the tuition in EduZ, can see he become interest in his study and improve his study.



Emiline Tay

1 review

★★★★★ a month ago

My Daughter's Chinese has improved in her PSLE since we enrolled her with EduZ Tuition Bot at CCK Central. her teachers in the center are experienced and patient.



www.eduztuition.com

The EduZ Youtube



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THE
IMAGES TO
WATCH
THE
VIDEOS



Welcome to
EduZ Tuition!



Learning in
progress!

The EduZ
Experience

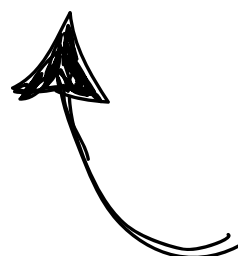


Table 1: Selected macroeconomic indicators of Italy

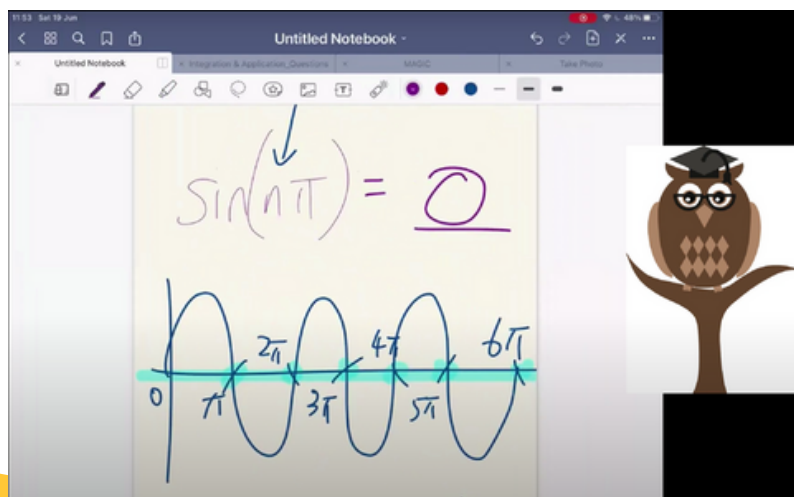
	2014	2015	2016	2017
Real GDP Growth (annual %)	0.1	0.5	1.1	0.5
Consumer Prices (annual %)	0.24	0.06	-0.09	1.23
Unemployment (% of total labour force)	12.5	13.1	11.5	11
Nominal Interest Rate (%)	0.05	0.05	0.0	0.0
Public Debt (% of GDP)	131.5	131.3	131.1	131.3

(a) (i) Explain the link between economic growth and public debt. [1]
(ii) In the case of Italy, does the data in Table 1 support the above relationship? [2]
(b) (i) Using Table 1, explain why real interest rate has been mostly negative in Italy. [2]

Extract 3: The Japanese economy - is Abenomics working?

Japan had a relatively good year in 2016 and the momentum continues into 2017. However, underlying domestic private consumption and investment remain moderate, and inflation remains stubbornly low. The Bank of Japan admitted that raising inflation to the 2 percent policy target was taking much longer than expected. Having an inflation rate that is too low for a prolonged period causes the economy to lose its momentum and one overarching concern is that households and businesses will expect even lower inflation in the future, causing them to hold back their spending.

Let us step back and revisit the much-hyped "three arrows" of Abenomics.



Lesson Flow

Below is a typical study flow for EduZ students.
Depending on the Tutor, there may be variations to the lesson flow.

Step 1

On arrival, the tutor will collect and review the completed homework with the class.

Step 2

The tutor will highlight important content on the syllabus and share important notes with your child.

Step 3

At the centre, your child will complete the assigned worksheets.

Step 4

The tutor will correct and go through the worksheets in class. Your child can also clarify his/her doubts during Q&A sessions.

Step 5

To maximise learning, worksheets will be assigned as homework for enrichment purposes.



SECONDARY 4 E.MATH CURRICULUM

S4 E Math focuses on meeting the expectation of the 'O' & 'N' Level E Math syllabus. Revision for the entire 'O' & 'N' Level syllabus will be carried out in the later half of the year.

S4 O lvl E.Math Syllabus

1. Set Language and Notation
2. Data Analysis- Measure of Spread
3. Probability
4. Matrices
5. Vectors in Two Dimensions
6. Secondary 1-3 Topics

S4 N lvl E.Math Syllabus

1. Data Analysis- Measure of Spread
2. Probability
3. Secondary 1-3 Topics

GCE O Level S4 E.Math

PAPER 1: SHORT RESPONSE QUESTIONS

Total: 90 marks, 26 questions

Duration: 2 hours 15 minutes

PAPER 2: LONG STRUCTURED QUESTIONS

Total: 90 marks, 9-10 questions

Duration: 2 hours 15 minutes

GCE N Level S4 E.Math

PAPER 1: SHORT RESPONSE QUESTIONS

Total: 90 marks, 26 questions

Duration: 2 hours 15 minutes

PAPER 2: LONG STRUCTURED QUESTIONS

Total: 90 marks, 9-10 questions

Duration: 2 hours 15 minutes



Structured and organised curriculum

Our curriculum is designed to align with the requirements of the final exams. As the year progresses, we transit into a focused revision phase to equip and prepare students for their final exams.



Topical worksheets and concept drills

Topical worksheets and concept drills help students master each topic and strengthen their understanding of key concepts. We use these materials to identify any gap in student's knowledge and tailor their learning approach to address these areas.



Interactive and engaging teaching methods

By leveraging technology, it allows immediate feedback and assessment. We create a dynamic and interactive classroom environment that supports students' development to develop a deeper understanding of concepts.



Preparation for Final Examinations

We place emphasis on time management skills. Ample techniques such as timed assessments are designed to help students build confidence for their final exams.

CONTENT & LANGUAGE MASTERY

- S4 E Math continues to introduce more concepts, namely calculus, geometric theorems, and application-based kinematics.

SKILLS AND TECHNIQUES

- Problem sums that involving real-world situations and combines the knowledge of multiple concepts are a top priority to prepare students for the challenging final exam.

REVISION AND REINFORCEMENT

- Intensive revision will be focused on mastering all the E Math concepts through topical revision packages. Examination skills such as time management and error analysis will be honed through practice tests.



Elementary Mathematics



Sec 4 E Maths Topical Notes Chapter 17: Vectors Questions (Classroom)

Level 1

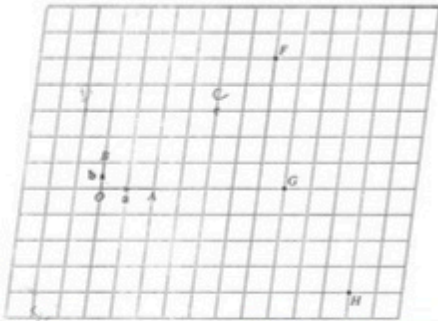
- 1) Given that $u = \begin{pmatrix} 8 \\ -2 \end{pmatrix}$, $v = \begin{pmatrix} 2 \\ 6 \end{pmatrix}$ and $w = \begin{pmatrix} 16 \\ p \end{pmatrix}$.
- Find
 - $|u \cdot v|$.
 - $2v + u$.
 - Given that the vector w is parallel to the vector u , calculate the value of p .
- 2) $a = \begin{pmatrix} 6 \\ -8 \end{pmatrix}$, $b = \begin{pmatrix} 2 \\ -4 \end{pmatrix}$ and $c = \begin{pmatrix} m \\ 6 \end{pmatrix}$.
- Find $|a|$.
 - Express as a column vector
 - $2a + b$.
 - $3a - 2b$.
 - Given that b is parallel to c , find the value of m .
- 3) $P = \begin{pmatrix} 3 \\ -4 \end{pmatrix}$, $q = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$ and $r = \begin{pmatrix} a \\ b \end{pmatrix}$.
- Express as a column vector
 - $2p + 3q$.
 - $4q - \frac{1}{2}p$.
 - Find
 - $|p|$.
 - $|2p + 3q|$.
 - Given that $3p = 2q - r$, find the value of a and the value of b .
 - If $p = 3q + 2s$, express s as a column vector.
- 4) $p = \begin{pmatrix} -8 \\ 6 \end{pmatrix}$, $q = \begin{pmatrix} 7 \\ -9 \end{pmatrix}$ and $r = \begin{pmatrix} 5 \\ -5 \end{pmatrix}$.
- Find $|p|$.
 - Express as a column vector
 - $2p + q$.
 - $q - 2r$.
 - Write down two facts about the vectors $2p + q$ and $q - 2r$.



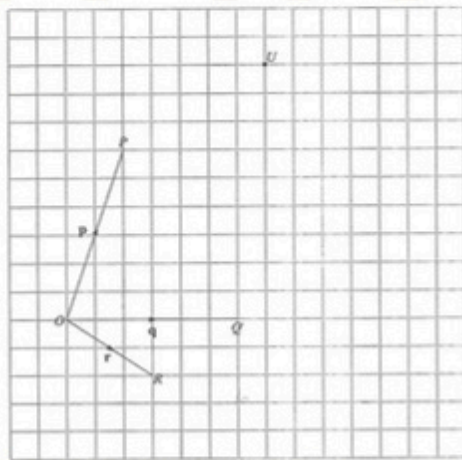
Elementary Mathematics



- i) $\vec{OF}$
- ii) $\vec{OG}$
- iii) $\vec{OH}$



- 6) On the grid, $\vec{OP} = p$ and $\vec{OQ} = q$ and $\vec{OR} = r$. the point U is also marked.
- a) mark and label on the grid, the point S such that $\vec{OS} = -\frac{1}{2}\vec{OP} + 2\vec{OQ} - 3\vec{OR}$.
 - b) Given that $\vec{OT} = hp$ and $\vec{TU} = kq$
 - i) Mark and label the point T
 - ii) Find the value of h and the value of k.





Elementary Mathematics



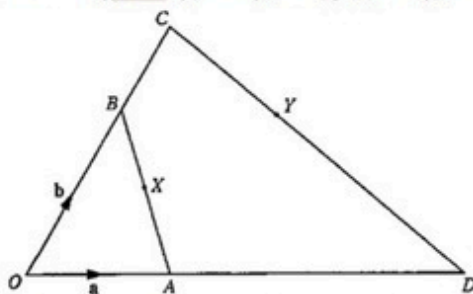
The position vectors of A and B, relative to O, are $6a$ and $6b$ respectively.

$$\vec{OL} = \vec{LA} \text{ and } \vec{BM} = \frac{1}{3} \vec{BA}.$$

- Express each of the following in terms of a and b .
 - $\vec{BM}$
 - $\vec{OM}$
 - $\vec{ML}$
- Find the position vector of P, such that $\vec{LP} = 3\vec{LM}$.
- Make two statements about the points O, B and P.
- Find the position vector of N such that LMBN is a parallelogram.

14) P is the point (3, 4). Q is the point (-1, 2)

- Write down
 - The column of vector $\vec{PQ}$
 - Find $|\vec{PQ}|$
 - Given that $\vec{PL} = \frac{1}{2} \vec{PQ}$, find $\vec{PL}$.
- In the diagram, $\vec{OA} = a$, $\vec{OB} = b$, $\vec{OB} = 2\vec{BC}$, $\vec{AD} = 2\vec{OA}$ and $\vec{AB} = 2\vec{AX}$.



- Express as simply as possible, in terms of a and b ,
 - $\vec{AB}$
 - $\vec{OX}$
 - $\vec{CD}$
- Y is the point on CD such that $CY : YD = 1 : 2$. Express $\vec{OY}$ in terms of a and b .
- Hence write down two facts about O, X and Y.

SECONDARY 4 A.MATH CURRICULUM

S4 A Math focuses on meeting the expectation of the 'O' & 'N' Level A Math syllabus. Revision for the entire 'O' & 'N' Level syllabus will be carried out in the later half of the year.

Secondary 4 A.Math Syllabus

1. Differentiation techniques
2. Applications of differentiation
3. Integration techniques
4. Applications of integration
5. Kinematics
6. Proof of plane geometry
7. Secondary 3 topics

GCE O Level S4 A.Math

PAPER 1:

Total: 90 marks, 12-14 questions*

Duration: 2 hours 15 minutes

PAPER 2:

Total: 90 marks, 9-11 questions*

Duration: 2 hours 15 minutes

*Note: Number of questions may vary depending on paper



Sequential Progression

Our curriculum is organized in a logical and sequential manner, building upon previously learned concepts, allowing students to grasp new concepts progressively and reinforcing their understanding along the way. We will also transition to revision phase to prepare students for upcoming O Level paper.



Topical worksheets and concept drills

Well crafted topical worksheets and concept drills help students master each topic and strengthen their understanding of key concepts. We use these materials to identify any gaps in student's knowledge and tailor their teaching approach to address these areas.



Individualized Attention and Support

The individualized approach employed by tutors enables them to identify specific areas where students might face difficulties, allowing for personalized guidance and targeted practice to address these challenges and enhance their proficiency in A.Math.



Practice and Exam Preparation

A wide selections of practice materials, including past year exam papers and mock tests are provided to help students familiarize themselves with the exam format and develop effective exam strategies. This drill examination techniques and help students build confidence to perform well in their Secondary 4 A.Math O Level Paper.

CONTENT & LANGUAGE MASTERY

- S4 A Math continues to introduce more concepts, namely calculus, geometric theorems, and application-based kinematics.

SKILLS AND TECHNIQUES

- Problem sums that involving real-world situations and combines the knowledge of multiple concepts are a top priority to prepare students for the challenging final exam.

REVISION AND REINFORCEMENT

- Intensive revision will be focused on mastering all the A Math concepts through topical revision packages. Examination skills such as time management and error analysis will be honed through practice tests.



Additional Mathematics



Sec 3/4 A Maths Topical Notes Chapter 14: Differentiation Techniques, Equations of Tangent and Normal Questions (Homework)

1) Differentiate the following with respect to x .

(a) $\sqrt{3x^2 + 2x + 1}$

(b) $5(8 - 3x^2)^5$

(c) $\sqrt{x(x+2)^2}$

(d) $\frac{2}{3\sqrt{6x+5}}$

2) Differentiate the following with respect to x .

(a) $\frac{5x^3 + 4x^2 + 1}{3x^2}$

(b) $\frac{3(x+1)^2}{x}$

(c) $\frac{4x^2 - 9}{(2x+3)}$

(d) $\frac{x^2 - 16}{(x-4)(x-5)}$

3) The gradient of the curve $y = 2x^2 + mx + n$ at the point $(1, 5)$ is 8.

Find the value of m and of n .



Additional Mathematics



4) Given that $(x) = \sqrt[3]{\frac{x+1}{x+4}}$, show that $f'(x) = \frac{1}{\sqrt[3]{(x+1)^2(x+4)^4}}$.

5) Find the gradient of the curve $y = \frac{2x-4}{2-2x}$ at the point where it crosses the x -axis.

6) Given the curve $y = \frac{4x^3-1}{x}$, find

- (a) the gradient of the curve when $x = -\frac{2}{3}$,
- (b) the coordinates of the point where the tangent is horizontal.

7) It is given that $y = hx^2 - x + k$ at point $P(-1, -10)$ has gradient -5 . Find

- (a) the values of h and k ,
- (b) the equation of the normal to the curve at P .

8) A curve has the equation $y = x^2 - 4x + 7$. Find

- (i) $\frac{dy}{dx}$,
- (ii) the coordinates of the point on the curve for which the tangent is parallel to the x -axis,
- (iii) the equation of the normal at the point where $x = 1$.

9) Given that the tangent to the curve $y = 3(x+2)(x-2)$ at the point A is perpendicular to the line $6y + x = 3$, find the coordinates of A .



Additional Mathematics



10) Find the equation of the tangent and the normal to the curve $y = \frac{12x}{(3-2x)^2}$ at the point where $x = 1$.

11) Find the value of k for which the line $2y + kx = 10k$ is a tangent to the curve $xy - 4 = 6x$ at the point where $x = 2$. Hence, find the corresponding equation of the normal at this point.

12) Find the value of h for which the line $4y - x = 2h$ is a normal to the curve $y = \frac{1}{4(1-x)^2}$.

13) Find the equation of tangent to the curve $y = 2x^2 - 3x$ which is perpendicular to the line $2y - 4x = 3$.

14) Given that the equation of the normal to the curve $y = ax + \frac{b}{x}$ at the point $(2, 7)$ is $2y + 4x = 22$, find the value of a and b . Given that the normal meets the curve again at Q , find Q .

SECONDARY 4 ENGLISH CURRICULUM

S4 English program is strategically designed to align with the exacting standards of the 'N' or 'O' Level English paper, while concurrently fostering students' ability to distinguish themselves through exemplary essay writing and performance in comprehension and communication assessments.

PAPER 1: WRITING (35%)

Total: 70 marks

Duration: 1 hour 50 minutes

Section A: Editing (10)

Edit grammatical errors in short written text

Section B: Situational Writing (30)

250–350 words on a given situation which will involve viewing a visual text

Section C: Continuous Writing (30)

350–500 words on one of four topics set.

PAPER 2 COMPREHENSION (35%)

Total: 50 marks

Duration: 1 hour 50 minutes

Section A: Visual text (5)

Edit grammatical errors in short written text

Section B: Comprehension (20)

Narrative or recount text

Section C: Comprehension (25)

Non-narrative text, and write an 80-word summary of text

PAPER 3 LISTENING (10%)

Total: 30 marks

Duration: About 45mins

Section A: Listening tasks (22)

Recording played twice.

Section B: Note-taking (8)

Recording played once.

PAPER 4 ORAL (20%)

Total: 30 marks

Duration: About 20mins

Part 1: Reading Aloud (15)

Read aloud short text

Part 2: Spoken Interaction (15)

A discussion with the Examiners on a topic based on a video clip.



Comprehensive curriculum

Our Centre covers all aspects of S4 English from Paper 1 to Paper 4, including reading comprehension, writing skills, grammar, and vocabulary.



Focus on skills development

Hones the critical thinking, sharpening analytical skills, and nurturing effective communication abilities, our program equips students with a comprehensive skill set to perform well for O and N Level paper.



Regular assessments and feedback

Regular assessments and feedback to track progress and identify areas for improvement and ensure that each student is reaching their full potential.



Individualized attention

Our small class sizes and personalized approach allow assess the strengths and weaknesses of individual students and curate materials to target their weak areas.

CONTENT & LANGUAGE MASTERY

- Even more complex written passages and more recent current affairs in-class discussion continues to make the bulk of lesson time to help students prepare for their final exams. Students continue to attempt papers of diverse topics to apply discussed ideas.

SKILLS AND TECHNIQUES

- Students are taught to master their critical evaluation, summarizing and comprehension skills on a wide range of topics, while also organising and supporting arguments in a coherent and logical manner to substantiate arguments.

REVISION AND REINFORCEMENT

- Revision will be focused on mastering the individual 'N' or 'O' Level paper requirements and honing time management skills through practice tests in simulated exam conditions.
- Discussion on key topics will be held to build students' repository of general knowledge and current affairs.



English



Section B

Text 2

The text below describes the author's experience during a family outing to a lake. Read it carefully and answer Questions 5-13 in the Question Booklet.

- 1 We often had Durston's Pond all to ourselves but on our arrival, we found half a dozen male Duvitches, members of the odd family that lived across the street, in possession of it. Tom and I stood apart and ignored the Duvitch boys but Father went up to Mr Duvitch, who was fishing from the shore of the lake, and put out his hand. "Good morning, Mr Duvitch! It's nice to see you and the boys here." 5
- 2 Mr. Duvitch was a little fellow, a lean starveling of a man with watery blue eyes and a kicked-about look. Gratitude for being agreeably noticed showed in his mosquito-bitten face as he took Father's hand with a trembling one of his own while his tremulous smile showed broken teeth. 10
- 3 Father went on affably, "I know the mosquitoes are biting, but are the fish?" Proudly, oh, so proudly, Mr Duvitch exhibited the catch that would probably feed his family for the better part of a week: a fine mess of bass, perch and sunfish, all of them alive, and swimming around in the oaken washtub in which they had been dropped. Father gave Mr. Duvitch hearty congratulations and said we could not hope to do as well but that we would try. 15
- 4 Tom and I soon put the Duvitches out of our minds as we busied ourselves the whole morning fooling around in the water. On a trip to fetch towels and soap, we stopped to look again at the Duvitches' catch of fish. Tom and I, our glances meeting over the big cake of soap in my hand, were similarly and wickedly inspired. We held a brief whispering conversation; and then, egged on by him and quite willing on my own, I played a shameful trick on the Duvitches, the memory of which will come back to the end of my days to plague me. Without considering further, I dropped the cake of soap into the tub of fish. 20
- 5 With barely concealed smirks, we swam out to the raft, diving and frolicking in the deep water. After a while, Tom and I could hear muffled exclamations of dismay. Father joined our neighbors in a conclave, looking down at the tub of fish near his feet. After a few moments, he produced the whistle he carried on all our country excursions and blew it piercingly three times, the proclamation of emergency. This meant that Tom and I must come at once. 25



English



Section A [5 marks]

Refer to the poster (Text 1) on page 2 of the Insert for Questions 1-4.

- 1 Refer to the illustration on the left of the poster. Which feature of the activity described in the section headed **A Sensory Story Experience** does the illustration show?

.....
.....[1]

- 2 How would this event be a sensory story experience for the audience?

.....
.....[1]

- 3 Look at the heading **About the Artist**. Write down two phrases in which the advertisement might appeal to people who appreciate an instructor with wealth of experience.

(i).....[1]

(ii).....[1]

- 4 Who is the poster aimed at?

.....[1]

SECONDARY 4 PURE PHYSICS CURRICULUM

S4 Pure Physics focuses on meeting the expectation of the 'O' & 'N' Level Pure Physics syllabus. Revision for the entire 'O' & 'N' Level syllabus will be carried out in the later half of the year. With meticulous guidance and targeted practice, our students are fully prepared to tackle the 'O' & 'N' Level Pure Physics examinations with confidence and achieve outstanding results.

Secondary 4 Physics Syllabus

1. Static Electricity
2. Current of Electricity
3. D.C. Circuits
4. Practical Electricity
5. Magnetism
6. Electromagnetism
7. Electromagnetic Induction
8. Secondary 3 Topics

GCE O Level S4 Pure Physics

PAPER 1: MCQ

Total: 40 marks, 40 questions

Duration: 1 hour

PAPER 2: STRUCTURED QUESTIONS

Total: 80 marks

Duration: 1 hour 45 minutes

Section A: Short Answer Questions (50 marks)

Answer all questions, 7-10 questions

Section B: Long Structured Questions (30 marks)

Answer 3 questions - 2 compulsory questions, 1 either/or question

Paper 3: Practical (40 marks)



Organised curriculum

S4 Pure Physics curriculum is organised in a progressive manner, ensuring that all essential concepts and subtopics are included, allowing students to progressively strong understanding of the each topic and the subject as a whole.



Comprehensive Study Materials

The tuition centre provides comprehensive study materials and resources specifically designed for S4 Pure Physics. Well-structured and organized study materials can students to consolidate their knowledge, practice exam-style questions, and reinforce and drill key concepts.



Individualized Attention and Support

The individualized approach enables us to identify specific areas where students might face difficulties, allowing for personalized guidance and targeted practices to address these weaknesses and strengthen their conceptual understanding of Physics and prepare them for O Level.



Exam Preparation and Strategies

Students acquire the skills to effectively analyse questions and answer with appropriate answering techniques and right keywords to score. Through drilling practice papers and mock exam, students gain confidence and exposure and excel in their GCE O Level Physics paper.

CONTENT & LANGUAGE MASTERY

- S4 Pure Physics touches on new topics such as Static Electricity, Magnetism, Electromagnetism and Electromagnetic Induction.

SKILLS AND TECHNIQUES

- Students will be coached and guided in problem solving strategies and answering techniques on a wide range of exam questions. Through these repeated practices, students will explored the multiple ways of solving so students can reapply into the various question types.

REVISION AND REINFORCEMENT

- Intensive revision will be focused on mastering all the Pure Physics concepts through topical revision packages. Examination skills such as time management and error analysis will be honed through practice tests.



Pure Physics



Section A [50 marks]

Answer all questions in the spaces provided.

- 1 (a) (i) Circle the value of the prefix Mega

10^{-9} 10^{-6} 10^{-3} 10^{-2} 10^{-1} 10^3

- (ii) Rearrange the following prefixes in order from the largest to the smallest value

μ d G n

[1]

- (b) Fig. 1.1 and Fig 1.2 show two ways of hanging a picture frame, weighing 16N, on a wall.

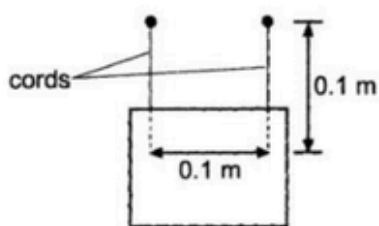


Fig. 1.1

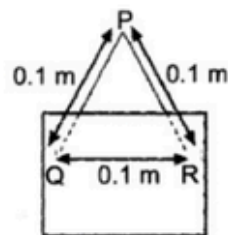


Fig 1.2

In Fig. 1.1, the frame is hung from two identical cords, each of length 0.1m, spaced 0.1m apart.
In Fig. 1.2, a similar cord, of length 0.2m, is used to suspend the frame from a single point P, such that points Q and R are also spaced 0.1m apart.

- (i) State the tension in each cord in Fig. 1.1.

tension = ... [1]

- (ii) In the space below, draw a labeled diagram to determine the tension in the parts of the cord, PQ and PR, in Fig. 1.2.

Tension in PQ=

Tension in PR= [3]



Pure Physics



2. Fig. 2.1 is a graph describing the motion of a car.

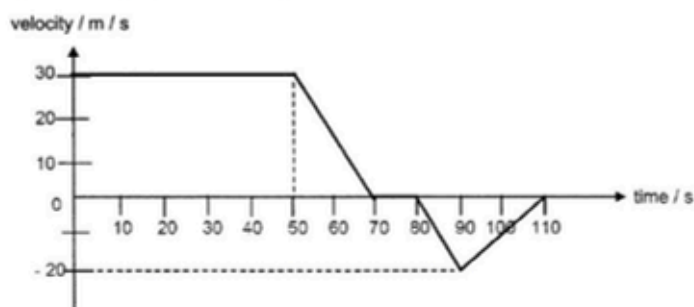


Fig2.1

(a) Explain, in terms of forces acting, why the car moves at constant speed for the first 50 seconds.

[1]

(b) Describe the motion of the car from the 50th to the 90th second.

[3]

(c) Calculate the displacement of the car at 110 s.

Displacement = ... [2]

(d) Calculate the average speed of the car for the entire journey.

Average speed = ... [2]

SECONDARY 4 PURE CHEMISTRY CURRICULUM

S4 Pure Chemistry focuses on building students' Chemistry knowledge as a cumulative curriculum. A strong foundation is crucial for their upper level Chemistry.

Secondary 4 Pure Chemistry Syllabus

1. Metals & Reactivity Series
2. Speed of Reaction
3. Energy Changes
4. Redox & Electrolysis
5. Air & the Atmosphere
6. Ammonia
7. Organic Chemistry
8. Macromolecules
9. Secondary 3 topics

GCE O LEVEL S4 PURE CHEMISTRY

PAPER 1: MCQ

Total: 40 marks, 40 questions

Duration: 1 hour

PAPER 2: STRUCTURED QUESTIONS

Total: 80 marks

Duration: 1 hour 45 minutes

Section A: Short Answer Questions (50 marks).

Answer all questions, 7-10 questions

Section B: Long Structured Questions (30 marks).

Answer 3 questions - 2 compulsory questions, 1 either/or question

Paper 3: Practical (40 marks).



Organised curriculum

Our curriculum is organised to cover the topics of S4 Pure Chemistry. We have structured the curriculum in a logical and progressive manner, ensuring that all essential concepts and subtopics are included, allowing students to develop a strong understanding of the subject.



Comprehensive Study Materials

The tuition centre provides comprehensive study materials and resources specifically designed for S4 Pure Chemistry. Well-structured and organized study materials can aid students to consolidate their knowledge, practice exam-style questions, and reinforce their understanding of key concepts to prepare them for the upcoming 'O' & 'N' Level.



Individualized Attention and Support

The individualized approach enables us to identify specific areas where students might face difficulties, allowing for personalized guidance and targeted practice to address these challenges and enhance their proficiency in Chemistry and excel in exam.



Exam Preparation and Strategies

Students acquire the skills to approach questions with proper question analysis, identifying keywords, and appropriate answering techniques. Through wide exposure of exam papers, students gain confidence, improve their exam performance, and develop effective and examination strategies to do well for 'O' & 'N' Level.

CONTENT & LANGUAGE MASTERY

- S4 Pure Chemistry continues to build on students' knowledge with new topics like Organic Chemistry and Electrochemistry and continues to integrate S3 Chemistry topics into these new topics.

SKILLS AND TECHNIQUES

- Students are taught to integrate existing knowledge with upper secondary topics while honing their presentation skills. Building of good habits like double checking their own answers is also crucial to minimize the loss of marks.

REVISION AND REINFORCEMENT

- Intensive revision will be focused on mastering all the Pure Chemistry concepts through topical revision packages. Examination skills such as time management and error analysis will be honed through practice tests.



Pure Chemistry

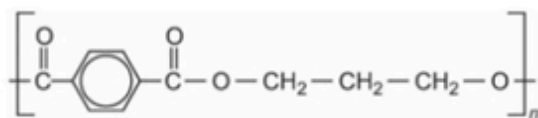


20

B3

OR

Many soft drinks bottles are made of thermoplastics, polyethylene terephthalate (PET), which is formed from polymerization of two different monomers and has the following structures:



(a) (i) Draw the structural formula of the two monomers that can be polymerized to PET.

[2]

(ii) Name the type of polymerization involved and give the reason for your choice.

[1]

(b) Most environmental friendly green bags are made of 100% non-woven polypropene which is recyclable but not biodegradable.

(i) Write an equation, showing the structural formula, to illustrate the formation of polypropene from its monomer.

[1]

(ii) Name the type of polymerization involved.

[2]

(iii) Suggest why non-woven polypropene is still not considered environmentally friendly.

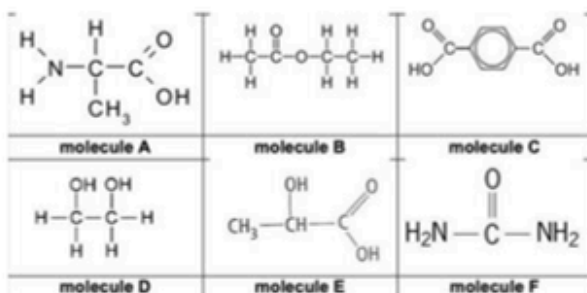
[1]

[Turn over]



Pure Chemistry

(c) Two of the following molecules can form condensation polymers by itself.



Identify the two molecules (A, B, C, D, E and/or F) and draw the structure of the repeating unit of each polymer in the boxes provided.

Molecule that can form a condensation polymer by itself:

Molecule: _____

Structure of repeating unit:

Molecule that can form a condensation polymer by itself:

Molecule: _____

Structure of repeating unit:

[4]

[Total: 10 marks]

End of paper

[Turn over]

SECONDARY 4 COMBINED SCIENCE CURRICULUM

S4 Combined P/C focuses on providing a balanced revision for both Physics and Chemistry as catered to the Combined P/C syllabus.

Secondary 4 Combined Physics Syllabus

1. Static Electricity
2. Current Electricity
3. D.C Circuits
4. Practical Electricity
5. Magnetism & Electromagnetism
6. Secondary 3 Topics

GCE O Level S4 Combined Science (Physics)

Paper 1: MCQs (20marks)

Duration: 1 hour

20 questions

PAPER 2: Structured Questions (65 marks)

Duration: 1 hour 15 mins

Section A: Short Answer Questions (55 marks)

7-9 questions

Section B: Free Response Questions (10 marks)

2-3 questions

Paper 3: Practical (15 marks)

Secondary 4 Combined Chemistry Syllabus

1. Metals & Reactivity Series
2. Maintaining Air Quality
3. Fuels & Crude Oil
4. Organic Chemistry
5. Secondary 3 Topics

GCE O Level S4 Combined Science (Chem)

Paper 1: MCQs (20marks)

Duration: 1 hour

20 questions

PAPER 2: Structured Questions (65 marks)

Duration: 1 hour 15 mins

Section A: Short Answer Questions (55 marks)

7-9 questions

Section B: Free Response Questions (10 marks)

2-3 questions

Paper 3: Practical (15 marks)



Comprehensive Study Materials

Comprehensive and quality study resources thoughtfully crafted for S4 Combined P/C to help students to consolidate their knowledge to build strong foundation. Well crafted exam-style questions can drill their understanding of key concepts and answering style to score well for 'O' & 'N' Level examination.



Organised curriculum

Our curriculum covers the topics of S4 Combined P/C following MOE curriculum, structured in a logical and progressive manner, ensuring that all essential concepts and subtopics are included, allowing students to develop a strong understanding of the physics and chemistry and excel in 'O' & 'N' Level paper,

CONTENT & LANGUAGE MASTERY

- S4 Combined P/C continues to build student knowledge with chemistry topics like redox and Organic Chemistry while also touching on physics topics like Electricity and Magnetism.

SKILLS AND TECHNIQUES

- Emphasis will be on ensuring student fully grasp the basic concepts in each chapter and thus, practice questions focus on answering common question types in each and every chapter.

REVISION AND REINFORCEMENT

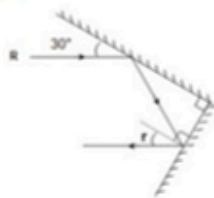
- Intensive revision will be focused on mastering all the Combined P/C concepts through topical revision packages. Examination skills such as time management and error analysis will be honed through practice tests.



Combined Science (Physics/ Chemistry)



- 14 The figure shows the path of a light ray R being reflected by two mirrors placed perpendicularly to each other.



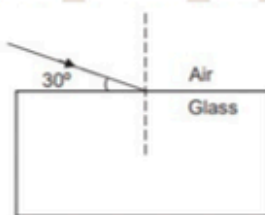
What is the value of r ?

- A 20° B 30°
C 45° D 60°

- 15 The speed of light in a clear plastic is 1.2×10^8 m/s. What is the refractive index of the plastic?

- A 0.40 B 1.20
C 1.80 D 2.50

- 16 A red light was shone into the glass block as shown in the diagram below. It strikes the glass block with an angle of 30° to the air-glass boundary.



Given that the glass block has a refractive index of 1.35, what is the angle of refraction as the red light enters the glass block?

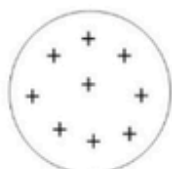
- A 39.9° B 21.7°
C 42.5° D 10.5°



Combined Science (Physics/ Chemistry)



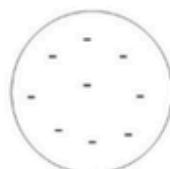
- 17 A positive charge A and a negative charge B are placed a short distance apart and a small negative charge X is placed between them.



A



X

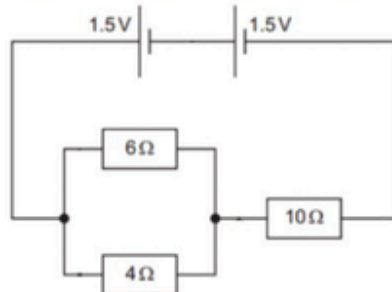


B

In which direction does X move, and what is the force between A and B?

	Movement of X	Force between A and B
A	Towards A	Attraction
B	Towards B	Attraction
C	Towards A	Repulsion
D	Towards B	Repulsion

- 18 The diagram shows a circuit



What is the amount of current flowing through the 10Ω resistor?

- A 0.10 A B 0.15 A
C 0.24 A D 0.30 A

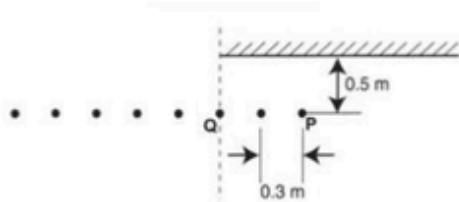


Combined Science (Physics/ Chemistry)



14 Eight students are standing in a straight line 0.5 m in front of a mirror, as shown in the diagram below. The students are spaced 0.3m apart from each other, and the third student from the right, Q, is standing directly in front of the edge of the mirror.

How many students, including himself, will the first student, P, be able to see in the mirror?



- A 3 B 5 C 6 D 8

Below are four statements about the uses of electromagnetic radiation.

Gamma rays are used in medical treatment.

Infra-red waves are used in sunbeds.

Microwaves are used in satellite television.

X-rays are used in intruder alarms.

How many of these statements are correct?

- A 1 B 2 C 3 D 4

SECONDARY 4 CHINESE CURRICULUM

S4 Chinese program emphasizes increased difficulty of Chinese papers, including drilling students' proficiency in comprehension questions, essay writing, and oral communication. S4 Chinese program aims to S4 Chinese focuses on meeting the expectation of the 'O' & 'N' Level Chinese paper while building students' examinations confidence. The program strives to equip them with the skills and knowledge needed to excel academically in Chinese.

Paper 1: Writing

Total: 60 marks | 2 hours

Section 1: Functional Writing (20 marks).

Typically >150 words, 2 choose 1:

- Personal email
- Formal email

Section 2: Essay Writing (40 marks).

Typically >300 words, 3 choose 1:

- Narrative essay
- Expository essay
- Argumentative essay
- Situational essay

Paper 2: Comprehension

Total: 70 marks

Duration: 1 hour 30 minutes

Section A: Fill In The Blanks

Section B: Comprehension 1

Section C: Comprehension 2

Paper 3: Listening and Oral

Oral

Total: 50 marks | 10 mins

Part 1: Reading Aloud

Read aloud short text

Part 2: Spoken Interaction

A discussion with the Examiners on a topic based on a visual stimulus.

Listening

Total: 20 marks | 30 mins

3 short dialogues or passage and 3 comprehension passages with 10 (MCQs).



Comprehensive Materials

Effective writing techniques and comprehension exercises are crafted to improve students' composition and comprehension answering abilities. Our materials also consolidates textbook vocabulary and increasing commonly used vocabulary and idioms, allowing students to improve their overall Chinese language proficiency.



Exam-Focused Approach

Our curriculum is designed to help students prepare for their school exams and beyond. We provide students with exam-focused materials and resources that are aligned with the latest MOE syllabus. Our teachers work closely with students to identify their weaker areas and provide them with tailored support.

CONTENT & LANGUAGE MASTERY

- Lesson plan will be tailored according to the 'O' & 'N' level schedule, with focus on the May-July examination. Additional lessons can also be tailored for students who wishes to retake their Chinese in the year end examination.

SKILLS AND TECHNIQUES

- Specific skills to master the individual 'O' & 'N' Level paper requirements will be taught to students. Personalized feedback and lesson plan will be provided to students in this final countdown period.

REVISION AND REINFORCEMENT

- Holistic revision, ranging from written text to comprehension to oral and listening will be the focus for the entire year. Students' time management skills will be honed through practice tests in simulated exam conditions.



第十课 模拟试卷练习

试 卷 一

一、实用文（任选一题，字数在150以上，占20分。）

Q1. 根据以下电子邮件的内容，写一个回复电邮。

File	Edit	View	Tools	Message	Help	—	■	×
发件人: 江坤成<jiangkuncheng@kgoomail.com>								
收件人: 赵小波<zhaoxiaobo@kgoomail.com>								
日 期: 2018年5月30日								
主 题: 误交损友								
小波:								
你好! 最近怎样? 一切都还好吧?								
我们好长时间没有见面, 也没有写电邮了。前几天遇到以前的同学林展竹, 从他口里知道你因不小心而误交损友, 失足犯错, 被警察叫去问话。因此, 你近期情绪有些沮丧, 也为此事深感后悔。我听后, 也为你感到担心。								
我很想知道到底发生了什么事情? 目前情况怎样? 可以吸取什么经验教训吗?								
希望你发个电邮给我, 把实际情况告诉我。无论如何, 我会支持你的。								
祝好。								
坤成								



Chinese



中学华文课程

Q2. 最近, 你所居住的组屋区进行了翻新。你发现经过翻新后, 楼下增添了一些新的设施, 为居民的生活带来了方便。

根据以上的材料写一封电邮给报馆言论版主编, 谈谈这些新设施给居民带来的好处, 并建议在其他的地区也增添这些设施。

发件人的姓名用张海云(邮址: zhanghaiyun@kgoomail.com)。

收件人的姓名用王家华(邮址: wangjiahua@kgoomail.com)。

二、作文(任选一题, 字数在300以上, 占40分。)

Q3. 以前我是一个缺乏自信、性格软弱的人。后来发生了一件事, 这件事让我变得自信和坚强。试写出这件事, 以及你的感受。

Q4. 要拥有一颗善良的心

Q5. 根据以下材料, 写一篇报章读后感。

最近, 我国一些黑店连续发生欺骗外国游客的事件。他们为游客购买手机设下圈套, 然后逼迫他们交付大笔保修费。事件曝光后, 国人感到羞耻, 纷纷要求把奸商绳之以法。



Chinese



中学华文课程

试 卷 二

一、综合填空（每题1分，共占10分）

根据短文的内容和上下文的意思，选出括号中最适当的词语，然后把代表它的数字写在下面的方格里。

拒绝别人的委托或要求，确实是一件很令人为难的事，但它却是每个人必学的生活艺术。学会它，懂得Q1（1灵巧 2灵敏 3灵活 4灵机）运用它，不仅生活会变得比较从容，你也不会因此而遭人讨厌。

稍作观察你就会发现：常常被委托、要求的也就是那几个人。他们并非能力有多么强，能Q2（1辨认 2面临 3化解 4承担）负荷较多的事务，而是因为不会拒绝。由于不会拒绝，他们就被任人使唤，一忙到底。

这是一种欺负老实人的行为，如同一些Q3（1否定 2负面 3例常 4习性）做法，做多了就有了惯性。今日既然你接受了对方的委托或要求，来日你便拒绝不了。否则，你之前的“善行”便被Q4（1化整为零 2一笔抹杀 3弄巧反拙 4冷嘲热讽）。

拒绝别人，其实有好的方法，那就是要Q5（1就事论事 2郑重其事 3例行公事 4事在人为），不要情绪化地加以拒绝。比如，朋友托你在他出国期间帮忙浇花喂狗，你若感觉Q6（1应付 2抵挡 3忙碌 4操劳）不来，就要直截了当明说，不要推说：“你不要每次有事都找我，行不行啊？”

拒绝时，要让对方Q7（1心中有数 2心领神会 3心悦诚服 4心旷神怡），而不能让对方感觉被轻视或伤害。懂得拒绝，不仅能Q8（1坚定 2确定 3保障 4保证）自己的立场及态度，也让自己能有时间规划生活，做个有个性且自在的人。

拒绝并非不善行为，而是避免压力增大的Q9（1门路 2策略 3秘诀 4举动），如果不会推辞对方的委托或要求，压力便Q10（1安然 2公然 3毅然 4轰然）坐到你的肩上，随时会作弄你。

Q1		Q2		Q3		Q4		Q5	
Q6		Q7		Q8		Q9		Q10	

Our Locations

Admiralty

736 Woodlands Circle
#01-513, S730736
(5 mins walk from
Woodlands Mart)

 8940 7170



Choa Chu Kang

223 Choa Chu Kang Central
#01-237B, S680223
(5mins walk from CCK MRT
3mins walk from Southview LRT)

 9797 3786



Marsiling

306 Woodlands St 31
#02-35, S730306
(5 mins walk from
Marsiling MRT)

 9062 5285





Our Locations

Choa Chu Kang

223 Choa Chu Kang Central
#01-237B, S680223

☎ 9797 3786

Marsiling

306 Woodlands St 31
#02-35, S730306

☎ 9062 5285

Admiralty

736 Woodlands Circle
#01-513, S730736

☎ 8940 7170

Our Socials

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Feel free to contact us or just say hi!

