

# Secondary Catalogue 2022

# Nurturing the Joy of Learning

Marshall Cavendish Education (MCE) is a global leader in education, dedicated to nurturing the joy of learning and preparing students for the future. We believe the best way to do that is by simplifying learning, and listening to what schools, teachers, students and even parents really need.

We make our world class educational content more accessible through a seamless experience that integrates print and digital resources.

MCE provides holistic, end-to-end solutions that are customised to the requirements of the school, with professional development for educators to help them in implementing the curriculum.



# **Curriculum** That Takes You On A Journey Of Discovery

MCE

COMPLETES

**YOUR LEARNING** 

JOURNEY

Education doesn't have to be boring. From early childhood through primary and secondary, our researchbased curriculum has been crafted by education experts to turn the school years into an engaging adventure for every student's mind.

Professional Development Programmes Your Path to Excellence

**Digital Solutions** For Seamless Learning

Educators learn too. We're with you on your path to excellence.

Our professional development programmes are developed by in-house education experts and partners such as Nanyang Technological University (NTU), to arm educators with the latest knowledge and advance their skills. We believe that when teaching expertise grows, so does the learning of students. Designed to reflect the changing shape of education, our digital solutions integrate blended learning into the curriculum, providing an engaging and interactive learning experience. This approach will be the blueprint for how students learn in the post-pandemic years.





# Our Global Reach and Recognition

Our quality learning materials and solutions have been adopted in more than **85 COUNTRIES** and translated

into 14 languages for Pre-K-12 learners.



We have gained recognition globally with consistent top performance in international studies such as TIMSS, PIRLS, PISA and the Global Competitiveness Report.

In 2019, we were recognised as the only Asian publisher who is an endorsement partner of the Cambridge Assessment International Education.

# Trends in International Mathematics and Science Study (TIMSS)

– 1995, 1999, 2003, 2007, 2011

Since 1995, Singapore has been ranked as one of the top-performing countries by TIMSS.

# 2001

# The Programme for International Student Assessment (PISA)

- 2009, 2012, 2016

Our 15-year-old students regularly emerge top for Mathematics, Science, and Reading in The Programme for International Student Assessment (PISA), a prestigious triennial benchmarking assessment.

2019

# Progress in International Reading Literacy Study (PIRLS) – 2001, 2006

Singapore saw a marked ranking improvement in the PIRLS rank, from 15th in 2001 to 4th in 2006. Singapore also ranked 2nd among the education systems that took tests solely in English.

# 2009

1995

# The only Asian publisher who is an endorsement partner of Cambridge International

- 2019

In 2019, Marshall Cavendish Education became the only Asian publisher who is an endorsement partner of Cambridge Assessment International Education.

# **ENGLISH**

# **Learning Pathways**

Our materials are thoughtfully crafted to accompany students on their learning journey, from Preschool to a Secondary level. Discover the flow of our curriculum and the suitable titles for each educational level.

### **CEFR LEVELS**

The Common European Framework of Reference for Languages (CEFR) is an international standard for describing language ability. It describes language ability on a six-point scale, from A1 for beginners, up to C2 for those who have mastered a language.





**PROFICIENT USER** 

Source: http://www.cambridgeenglish.org/exams-and-tests/cefr/



# MATHS

# **Learning Pathways**

Our materials are thoughtfully crafted to accompany students on their learning journey from Grade K to 12, and an example of Cambridge Maths Learning Pathways from Grade 1 to 12.

### Learning Pathway: Mathematics for Grades K to 12

Preschool	Primary Maths	Lower Secondary	Upper Secondary
Earlybird Kindergarten	MCE Cambridge Primary	<ul> <li>Maths Ahead<sup>^</sup> New</li> </ul>	<ul> <li>MCE Cambridge IGCSE<sup>™</sup> Core</li> </ul>
Mathematics	Maths 2nd Edition* New	• Maths 360 <sup>+</sup>	and Extended Mathematics*
<ul> <li>Primary Mathematics</li> </ul>	<ul> <li>My Pals Are Here! Maths</li> </ul>	<ul> <li>Math in Focus 2020</li> </ul>	(Coming Soon)
(2022 Edition)	3 <sup>rd</sup> Edition	<ul> <li>Mathematics Matters</li> </ul>	<ul> <li>MCE Cambridge IGCSE<sup>™</sup> O Level</li> </ul>
<ul> <li>Maths in Focus 2020</li> </ul>	My Pals Are Here! Maths	<ul> <li>Discovering Mathematics</li> </ul>	Additional Mathematics*
• Up, Down and All Around (UDAA)	4 <sup>th</sup> Edition New		(Coming Soon)
Kinder Thinkers	<ul> <li>Shaping Maths 3<sup>rd</sup> Edition</li> </ul>		MCE Cambridge O Level
	Primary Mathematics 2022		Mathematics D* (Coming Soon)
	Math in Focus 2020		<ul> <li>Maths 360<sup>+</sup></li> </ul>
	New Mathematics Connection		<ul> <li>Additional Maths 360<sup>+</sup></li> </ul>
			<ul> <li>Mathematics Matters</li> </ul>
			New Mathematics Count

We are working with Cambridge Assessment International Education towards the endorsement of these titles.

\*Singapore-Cambridge GCE O level and N level. These resources have not been through the Cambridge International endorsement process. \*Aligned to the latest Cambridge Lower Secondary Mathematics curriculum framework 0862.

### Cambridge Learning Pathway: Mathematics for Grades K to 11

Suggested MCE series to support learners following the Cambridge International curriculum.



We are working with Cambridge Assessment International Education towards the endorsement of these titles. \*Singapore-Cambridge GCE O level and N level. These resources have not been through the Cambridge International endorsement process. ^Aligned to the latest Cambridge Lower Secondary Mathematics curriculum framework 0862.

MCEduHub Digital Resources and Materials

Supplementary Materials

Continuous Professional Development for Educators and School Leaders

# Maths Curriculum Mapping

Choose the right series from our selection of quality Primary and Secondary Maths materials, depending on your school's curriculum needs, to ensure learners receive a joyful and nurturing yet intellectually stimulating education.

Choosing the Right Series:		Primary Maths			
International Series (Primary)	Cambridge Assessment International Education	UK Curriculum	US Common Core State Standards	Singapore Curriculum	Others
Marshall Cavendish Education Cambridge Primary Mathematics (2 <sup>nd</sup> Edition)	V				
My Pals Are Here! Maths				~	
My Pals Are Here! Maths Next Gen				~	
Shaping Maths				~	
Inspire Maths		~			
New Mathematics Connection					Thailand
Primary Mathematics			~		
Primary Mathematics 2022			~		
Math in Focus			US Edition of Singa	pore curriculum	
Math in Focus 2020			US Edition of Singapore curriculum		
MC Primary Mathematics					Hong Kong

Choosing the Right Series:			Secondary Maths		
International series (Secondary)	Cambridge Assessment International Education	US Common Core State Standards	Singapore Curriculum	Others	
Math in Focus		V			
Math in Focus 2020		V			
Discovering Mathematics				✔ HKDSE	
Maths Ahead	✓ Aligned for Grades 7 to 9				
Mathematics Matters			✓ Green is a 4-year course Yellow is a 5-year course covering the same content.		
New Mathematics Counts			✓ A 5-year course (Normal Academic)	Thailand	
Additional Maths 360			~		
Maths 360			A 4-year course (Normal Technical)		

# SCIENCE

# Learning Pathways

Our materials are thoughtfully crafted to accompany students on their learning journey, from Grade 1 to 12. Discover the flow of our curriculum and the suitable titles for each educational level.

### Learning Pathway: Science for Grade 1 to 12



We are working with Cambridge Assessment International Education towards the endorsement of these titles. \*Singapore-Cambridge GCE O level and N level. These series have not been through the Cambridge International endorsement process. Aligned to the Cambridge Lower Secondary Science curriculum framework (1113). "The titles in this series are endorsed by Cambridge Assessment International Education to support the syllabus for examination from 2023.

### Cambridge Learning Pathway: Science for Grade 1 to 11

Suggested MCE series to support learners following the Cambridge International curriculum.



We are working with Cambridge Assessment International Education towards the endorsement of these titles.

\*Singapore-Cambridge GCE O level and N level. These series have not been through the Cambridge International endorsement process. Aligned to the Cambridge Lower Secondary Science curriculum framework (1113).

\*The titles in this series are endorsed by Cambridge Assessment International Education to support the syllabus for examination from 2023.

### MCEduHub Digital Resources and Materials

Supplementary Materials

Continuous Professional Development for Educators and School Leaders

# Science Curriculum Mapping

Choose the right series from our selection of quality Primary and Secondary Maths materials, depending on your school's curriculum needs, to ensure learners receive a joyful and nurturing yet intellectually stimulating education.

Choosing the Right Series:			Primary Science			
International series (Primary)	Cambridge Assessment International Education	UK curriculum	US Common Core State Standards	Indonesian Curriculum	Thailand Curriculum	Singapore Curriculum
Marshall Cavendish Education Cambridge Primary Science (2 <sup>nd</sup> Edition)	V					
My Pals Are Here! Science (International)		V	V			✓ (adapted)
My Pals Are Here! Science (International) 2 <sup>nd</sup> Edition				V		
i-Science (International)						~
New Science Connection					~	

Choosing the Right Ser	ies:	Seconda	Y	
International series (Secondary)	Cambridge Assessment International Education	UK curriculum	Singapore Curriculum	Hong Kong Curriculum
Lower Secondary Science Matters			V	
International Lower Secondary Science		V		
Science Ahead	$\checkmark$	$\checkmark$		
Inspiring Science				V
Matters Series			V	
Discovering Series				V
Marshall Cavendish Education Cambridge IGCSE™ Series	V	V		

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# Secondary English

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Suitable for Learners of English as a Second Language



Grade 7 – 9 Age 13 – 15

# **Product Introduction**

*English Ahead* has been carefully crafted to challenge second language English learners. With integrated video, audio and authentic text, the series **exposes students to a range of communication techniques and encourages them to reason and think critically**.

With structured guidance in reading, listening, speaking and writing, the series **builds language skills in a measured, holistic way and encourages learners to read and write with purpose.** The student-centred activities encourage collaboration as well as build students' knowledge of the world around them.

This series is based on Cambridge Lower Secondary English as a Second Language Curriculum Framework (1110) for Stages 7, 8 and 9, while also drawing on other national syllabuses.

This series has not been through the Cambridge International endorsement process.

	CEFR
English Ahead 3	Low B2
English Ahead 2	B1
English Ahead 1	Low B1

Support materials for teachers can be found online: www.mceducation.com/eng-ahead

This series is also adapted to:

English Heads Up
English Ahead Lower Secondary (APSACS edition)



Grade 7	(Age 13)	Student Book with DVD-ROM 1 9789814823913	Student Enhanced eBook 1 9789814861212	Workbook 1 9789814823944	Workbook eBook 1 9789815015065	Teacher's Guide 1 9789814823975
Grade 8	(Age 14)	Student Book with DVD-ROM 2 9789814823920	Student Enhanced eBook 2 9789814861229	<b>Workbook 2</b> 9789814823951	<b>Workbook</b> eBook 2 9789815015072	Teacher's Guide 2 9789814823982
Grade 9	(Age 15)	Student Book with DVD-ROM 3 9789814823937	Student Enhanced eBook 3 9789814861236	<b>Workbook 3</b> 9789814823968	<b>Workbook</b> eBook 3 9789815015089	<b>Teacher's Guide 3</b> 9789814823999

# **Empower Students with Functional Knowledge**

This series aims at developing communicative competency in students. The content of the programme is carefully designed to blend modern, global themes alongside localised contexts, which teenagers can relate to. This will encourage them to contribute their own ideas and experiences, thereby building confidence.

# **Unit Opener**

Each of the 10 theme-based units opens with a video clip or an audio track.



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Listening

Engaging photographs activate thinking and

speaking before students listen to the audio

recording. They are encouraged to infer and

Don't do this online!

# **Strengthens Students' Foundation** with Organisational Knowledge

To maximise each students' potential with the English language, strong foundations are laid with an emphasis on organisational knowledge through an exposure to a multiplicity of structures of the English language. The learning is made engaging and enjoyable for teens through age-appropriate texts, appealing photographs, and stimulating audio and video clips.

# Language Focus

Grammar explanations and example sentences are presented in tables for easy understanding. Grammar is reinforced through follow-on exercises.



Tips on punctuation help students with writing.

# **Comprehension Questions**

While checking for understanding, discussion and personalisation questions enable students to relate the text to their own experiences and to discuss how the topic might impact them.

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## Reading

The theme-based reading texts are age-appropriate and engaging. All texts are recorded for extra listening opportunities.



# Glossary

Contains explanations to support understanding of the more challenging words in the text.

# **Caters to Different Learning Needs**

Designed for students of all levels, this series guides teachers on how to meet the needs of advanced learners to learners needing more support. The myriad of activities available via the accompanying digital resources empowers teachers, including new or non-specialist teachers, on planning and delivering effective and engaging lessons.



Secondary English

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MCE CAMBRIDGE IGCSE<sup>™</sup> ENGLISH AS A SECOND LANGUAGE (2<sup>ND</sup> EDITION)



Cambridge

English

Grade 10 - 11 Age 16 - 17

This series is in the process to be endorsed by Cambridge International.

# **Product Introduction**

anguage (2<sup>nd</sup> Edition)

The Marshall Cavendish Education Cambridge IGCSE<sup>™</sup> English as a Second Language (2<sup>nd</sup> Edition) Series is designed to support learners studying the full Cambridge IGCSE and IGCSE (9-1) English as a Second Language syllabuses (0510/0511/0991/0993) for examination from 2024 onwards.

The series focuses on **building communicative competence** and linking language to life. So the units are carefully structured according to the various functions that we use language for, such as informing, explaining, persuading and giving opinions. By learning language in this way students will build strong communication skills, based around real world contexts that they can relate to.

The series helps to equip students for the modern world by including a unit that focuses on developing 21<sup>st</sup> century skills such as media literacy and using social media productively. The units also include a focus on values. For example, a discussion may be about personal development, or building links with the wider community. Alternatively, students may be prompted to discuss issues and ideas which will highlight the purpose or worth of a task in relation to future employment. This kind of reflection and discussion will help students become future-ready.

Thorough coverage of language skills and grammar, as well as a focus on exam preparation, means that students will gain a solid grounding in English before moving on into higher education.



# How to use this series

Each unit in the series is designed to be covered over approximately eight lessons, which means that the series provides approximately 140 hours of classroom teaching. This series consists of the following components and key features.

The revised edition of this series includes a suite of specially crafted animations. These animations reuse key language from the units in the Student Book and Workbook, in an animated format and new context. Multi modal input of this kind helps to embed learning. Through the suite of animations included in the new edition of this series, students can enjoy a range of different styles from humorous cartoons to more formal and factual documentary style presentations. Ideas for teachers on how to use the animations in class have also been included. The addition of the animations in the new edition of this series, will increase learner engagement, and improve the learning experience.

# **Student's Book**

The Student's Book consists of 18 units structured according to the various functions we use language for, such as persuading, informing and explaining. The units contain eight lessons, each focusing on one of the four language skills of: **listening, speaking, reading** and **writing**, giving a balanced coverage of the four skills. At the end of the Student's Book is a **Glossary** of key words with meanings, and a thorough **Grammar Guide** with explicit grammar explanations and plenty of example sentences.

# Providing Greater Clarity and Focus for Language Learning



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# Building Communicative Competency and Language Mastery



# Focus on Language

Explanations and clarifications of specific language points are given to provide support and context.

# Language Focus

Grammar is taught explicitly with clear explanations, contextualised examples, and plenty of practice.

# Nurturing a Generation of Global Citizens with Lifelong Learning Skills

Unit 18 – a unit dedicated to exploring 21<sup>st</sup> century skills, such as media literacy and using social media productively.



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# **Differentiation of Activities**

Three-level icons differentiate tasks to select what level of challenge they prefer from simple to more challenging.

# Annotatable Workbook

Annotatable features allow students to make notes and write answers onthe-go for both the student book and workbook.



language and skills are presented in different contexts.

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Student Book pages

Workbook pages

Students read the article and answer the question orally

ANSWERS: Preparation, Discussion, Clarification, Bargaining, Implementing the agreement.

Reading comprehension

Ask students to read the Study Skills advice and then complet this short exercise

this short exercise Write the word photo on the board. Then ask: What words can w make from this root? Write a list on the board as students make suggestore. Help where necessary by asking students to think of a person, an adjective, etc. Suggested words photograph, photographic, photographic photograph, photographic, photographiable, unphotographiable, unphotographid, re-photograph.

Students work individually to answer the questions about the article. They compare their answers with a partner before checking as a whole class.

Support by doing the exercise orally around the class. Ask different students to provide answers.

Unit 11

181 - 198

82 - 89

# **Supporting Teachers with Differentiated Teaching** and Learning

# Warm-up

Teachers can engage students to recall and build upon contextual knowledge to arouse curiosity in the material.

Embedded

Professional

**Development** 

within the lesson notes,

is important or useful for

rationalise why each activity or question prompt

student learning.

Short explanations, found

# Summary and advanting a name or sense in unary or new or ne Lesson 1: Reading 1 Ask: Do you feel confident when you have to negotiate and reach a compromise? Why (mot)? Which negotiations are easiest/most difficult? Why is it important to reach a compromise?

and compromise

Encourage students to share their thoughts.

In this unit, students will learn to: recognise language used to negotiate (S1, R2, R3, R4, L1, L2, L3, L4) use separable and inseparable phrasal verbs (W3, S3) use the hunce simple for spontaneous decisions (W3, S3) write a formal email (W1, W2, W3, W4, W5)

Additionally, they will have the opportunity to practise

writing an email and a report (W), W2, W3, W4, W5
 skiteming and scanning a range of texts (R1, R2, R3, R4)

Negotiating: Using English for bargaining

Ask. What kind of decisions do you have to make each day? How do you reach a decision? What about when other people are involved? Encourage students to share their ideas. Warm-up ve an example of a negotiation they were

Ask: Who can give a involved in recently involved in recentry? Invite responses from different students around the class. This will get students thinking about the general topic of negotiating, it will help contextualise the information in the blog post. Use the advice in the Focus on Language box to emphasize why it is so important to be clear when negotiating.

Students read the first situation and imagine what they would do. Then they share their ideas with a partner. They repe the process with the second situation. Ask for a few ideas aroun the proce

With a partner students tell each other what they think a negotiation is. Then they read the thore article to check their ideal.

# ANSWERS: 1. a situation where both sides in a negotiation win 2. negotiations with other companies, with workers on 2. negotiations and negotiations around buying the state of the second second buying functions and second buying Student Book notes

Ask. Why is it important to be Encourage students to share attention to the Focus on La elicit a few ideas about whe because the consequences

with a handshake or a contract
 discuss = taik over diginite/solve = sort out find = come across support = back ups explain = point out

Study Skills

Students make notes under two headings related to registration. Encourage Extended students two develop their notes by using linking divides to add more deall, reason or opnicin. Then they compare their notes in pairs or groups of three. Encourage them to make precise notes but to be careful not to have out any of the key information.

For transmostary or an expression moves. Support by electring a few of the missing notes onally aroug the class and watering some notes on the board. Build in a thruling stage os students are aware of the importance of choosing key words to express the main points.

# SUGGESTED ANSWERS:

What is negosiation? A way of setting differences peacefully Revists in all spheres of our lives

- The five stages of negotiation
- eparation Decide what you want to achieve Think about what both ades want Discussion
- Sort out the practical details
   Listen carefully
- Clarification Estain advantages (with support)
   Establish common ground
- Barganing Make compromi

- Male compromises
   Reach an agreement or wolk away
   Reach an agreement or wolk away
   Implementing the agreement
   Agree on obligations
   Agree on obligations
   Agree on obligations Work out an action plan for implementation

### WORKBOOK

94

On page 82 of the Workbook there is an olderi based on the five steps of negotiation. OG EXErcise

### Language Focus: Phrasal verbs separable or inseparable?

an auto existingui autorezi nis read the explanations and examples. Make sure one understands the meaning of the phasal verbs used in amples. Turn down = refuse/reject. Look into = investigate The construction from toolways a non-annual point work in the energy of the provide the start of the energy of the

15 Secondary English

Answers and Transcripts Reference material

for both the student book and workbook to adjust and plan lessons according to learning needs.

## Support and Challenge Suggested activities

for both learner support and additional stretch.

- Asic How can we remember whether a phrasm verb is sepo or inseparable? Accept a few suggestions. Then ask students to read the Study Skills achieve in the side bar about making a note of phrasel ventor their lower.
- Students rewrite the sentences using an object pronoun for the underlined words.
- Support by allowing students to work with a partner. Challenge by asking students to close their books after the exercise and to try and remember the original sentences

- ANSWERS: 1. We can talk it over 2. We can talk it over 3. She pointed them our 4. Can you pick her up from the alront? 5. Wet load into it themonity 6. Go and look for him the meeting starts in five minutes.

Sudencis have further reading practice on page 82 of the Workbook: They read a text about how to be a great negotiator and complete a superhermon tak in which they with such heading in the correct place. This is belowed by an electree to practise the phrasial verbs from the Student Book.

# Lesson 2: Listening 1

Write a list of objects on the board that teenages of this ag might spend money on. For exampler t-thirt modele phone bainers, a hair cut, pizza, can of cola, headphones, cologne.

Asic New much do these things cost? Do they alweys cost the same? Who decides on the price?

Encourage students to share their ideas Values

- Ask: Anney a new negociated the price of something? Encourage students to share their idea and experiences. Then ask them is read the kates side bar about how negociating is perceived in different cultures.

# Warm-up

Ask students to discuss the three questions with a partner before asong a few pairs to share their ideas with the rest of the class.

# Students look quickly at the three advertisements and decide what is for sale in each one. Ask a volunceer to provide the answers grafy.

UNIT	CONTENT
1	Informing 1: Using English to share personal information
2	Expressing Opinion 1: Using English to express personal taste
3	Requesting 1: Using English to obtain goods and information
4	Explaining 1: Using English to provide reasons
5	Instructing 1: Using English to explain how to do something
6	Persuading 1: Using English persuasively
7	Informing 2: Using English to give practical information
8	Advising 1: Using English to share experiences
9	Complaining 1: Using English to express dissatisfaction
10	Instructing 2: Using English to make plans and give instructions
11	Negotiating: Using English for bargaining and compromise
12	Requesting 2: Using English to make formal requests
13	Explaining 2: Using English to explain complex ideas
14	Complaining 2: Using English to express ideals
15	Expressing Opinion 2: Using English to critique and review
16	Persuading 2: Using English to influence others
17	Advising 2: Using English to warn and prepare
18	Using English in the 21 <sup>st</sup> Century

# Secondary English Grade 3- & Up

# **English Writing Buddy**



Writing Buddy introduces the writing process and demonstrates simple strategies to help students excel in writing.

- Tutorials and Practices: Narrative, Recount and Situational Writing
- Writing Process and Language Activities for Skill Enhancement
- Scribo AI platform
  - Provides instant writing check and suggests edits
  - Increases teacher efficiency and reduces feedback cycle
  - Presents usage reports for live monitoring
  - Writing models for reference

# Available on

Components	
Levels	4
Animated Tutorials	28
Language Activities	69
Guided Practices	80

# FEATURES

### Text Types



### **Writing Process**



## Writing Skills



17 Secondary English



# Practices (Narratives), Practices (Recount), Practices (Situational)

# **Self-Directed Learning Tools**



Reading Aloud Practices – Listen, Learn, Read, Record and Publish with fluency and expression

**Stimulus-based Conversation** – Practise engagement and clarity in personal responses

Animated Tutorials: Text Types, Writing Process & Writing Skills – Reinforce learning objectives and enhance writing skills for functional use

**Al-Powered Practices** – Plan, edit, check and publish with confidence while teachers track progress in real time to give timely feedback and review

Product Type	Title
Skills-based	
Text Editing	<ul> <li>Distinction in English: Text Editing Sec 1 - 2 Express (2<sup>nd</sup> Edition)</li> <li>Distinction in English: Text Editing Sec 1 - 2 Normal Academic (2<sup>nd</sup> Edition)</li> </ul>
Grammar	<ul> <li>Distinction in English: Grammar for Reference and Practice</li> <li>Get It Right! Grammar</li> <li>Distinction in English – Lower Secondary Grammar Workbook</li> </ul>
Vocabulary	<ul> <li>Distinction in English: 'O' Level Vocabulary Book 1</li> <li>Distinction in English: Vocabulary (2<sup>nd</sup> Edition)</li> </ul>
Writing	Distinction in English: Writing
Comprehension	<ul> <li>Comprehension: Strategies for Excellence (Revised Edition)</li> <li>Distinction in English: Comprehension (2<sup>nd</sup> Edition)</li> </ul>
Guide Book	
Grammar	<ul> <li>Grammar Supplementary for Lower Secondary (Revised Edition)</li> <li>The English Grammar Handbook (Revised Edition)</li> </ul>
Vocabulary	<ul> <li>More Words Please</li> <li>Idioms in Conversation</li> <li>International English in Everyday Conversation</li> </ul>
Writing	<ul> <li>English Compositions: Writing Guide for O-Level</li> <li>Just Write Composition Guide</li> <li>Read Smart to Write Well</li> </ul>

**Legend:** Basic – <mark>–</mark>

Intermediate – ●

Advanced – 🔴

# Skills-based

# **Distinction in English: Grammar for Reference and Practice**



An essential grammar resource for reference and practice, this book is meant to help secondary school students master English grammar. Each unit begins with an introduction to grammar items within a context familiar to students. The notes provided are comprehensive which highlight grammatical rules and structures. The examples given illustrate the grammar items used. There are also practice exercises throughout each unit. Also included are grammar editing exercises which follow the format of the O-Level grammar editing questions found in Section A of the English Language Paper 1. The exercises provide ample opportunities for students to revise and consolidate their understanding of the grammar skills learnt.

Distinction in English: Grammar for Reference and Practice 9789813168459



SUPPLEMENTARY MATERIALS

## Get It Right! Grammar

Grammar rules covered in this guide book series take students through basic concepts to more complex ones, ensuring that understanding and acquisition of grammar items are systematic.



Secondary 1



Secondary 2 9789810177850 9789810177867



Secondary 3 9789810177539



Get it Right! Grammar Secondary 4 9789810177522

It contains:

- · Practices and examples to illustrate grammatical rules
- · Topical focus for adequate coverage of syllabus
- · Concise rules written in simple English

# Distinction in English: Text Editing Secondary

This book provides students with comprehensive practices in Text Editing. These practices expose students to a wide range of text types and introduce them to real-world issues. A good mix of grammar errors are tested in each practice and each grammatical item is clearly explained so students understand the underlying reasons for their edits. The explanations are helpful for independent revision. Upon completion of this book, students will have exposure to diverse text types and topics and gain a stronger grasp of grammar.



20 Secondary English

# **Distinction in English: Lower Secondary Grammar Workbook**



This book provides comprehensive practice for students who wish to better understand English grammar as well as improve in the fluency and accuracy of language use. The context-based exercises generate interest in students and allow them to practise grammar usage in different genres such as recounts, narratives, news reports, etc. Graded exercises help students build confidence in grammar usage.

 Distinction in English: Lower Secondary Grammar Workbook 9789810115005

# Distinction in English: 'O' Level Vocabulary (2<sup>nd</sup> Edition)



Build a wide and varied vocabulary through the use of this resource where words and phrases are applied in context for meaningful learning. Students will benefit from the useful tips for vocabulary-building and word-formation designed to encourage application of their knowledge of new words accurately and effectively.

# Distinction in English: 'O' Level Vocabulary (2<sup>nd</sup> Edition) 9789810115722

# Distinction in English: 'O' Level Vocabulary Book 1 $(New_J)$



Written by our best-selling author, this series contains varied exercises for pupils to get good exposure and ample practice in different situations to achieve a wider spectrum of relevant words. With tips, notes and imagery, pupils understand how they can build their vocabulary skills systematically with progressively challenging exercises to reinforce learning, making it a valuable resource for teaching vocabulary in context.

 Distinction in English:
 'O' Level Vocabulary Book 1
 9789814916387

# **Distinction in English: Writing**



This series helps students understand the steps for creating a piece of good writing. Each unit comes with writing resources and a deconstructed sample writing which includes explanations and tips. Ample practices are provided for students to write a variety of text types.

This series is suitable for supervised and independent study.

**Distinction in English:** Lower Secondary Writing 9789810195953



**Distinction in English:** 'O' Level Writing 9789810119409

# Comprehension: Strategies for Excellence (Revised Edition)

Key features include:

- Strategies Section teaches reading strategies explicitly so that students know what they are expected to do when reading. Activities are provided for immediate practice.
- Practice Section provides students with adequate practice on various strategies to develop their competency and confidence ٠
- · Progress Section allows students to record and chart their progress.
- Suggested answers and rubrics are provided for all sections. •



**Comprehension:** Strategies for Excellence Secondary 1 (Revised Edition) 9789810197254



Comprehension: Strategies for **Excellence Secondary** 2 (Revised Edition) 9789810197247



Comprehension: Strategies for Excellence Secondary 3 (Revised Edition) 9789810197230



Comprehension: Strategies for **Excellence Secondary** 4 (Revised Edition) 9789810196103





This series focuses on the mastery of skills and techniques in comprehension. In addition to step-by-step guidance in summary writing, students will learn valuable strategies for mastering inferential questions.

Students will learn to analyse types of essays and summary questions and to properly draft answers. They will also build vocabulary, learning to correctly infer the meanings of unfamiliar words. In addition, they will learn to interpret and comprehend visual texts.

 ▲ Distinction in English: ▲ Distinction in English: ▲ Distinction in English: Lower Secondary 'O' Level Comprehension Comprehension (Revised Edition) (Revised Edition) 9789810118600 9789810118594



# Grammar Supplementary for Lower Secondary (Revised Edition)



Students often find themselves struggling to make sense of grammar rules. This book will help students gain a better understanding of these rules so that they will know how the language works and how to use it effectively.

 Grammar Supplementary for Lower Secondary (Revised Edition)
 9789812806024

# The English Grammar Handbook (Revised Edition)



Equipped to help students master English grammar, this book contains notes to encourage self-directed learning. Practice guestions enable students to assess the grammar skills learnt.

The English Grammar Handbook O' Level Edition (Revised Edition) 9789810119751

# **More Words Please**

Learn the meaning and use of adjectives, action verbs and nouns through short comics. Educational and entertaining, this series allows readers to expand their vocabulary through comics featuring a brother, Jack, and his sister, Kate, who do not always get along.

With more than 600 words per title, key words are grouped by categories and subcategories to provide a better understanding of word relationships.



More Words Please 600+ Adjectives 9789888129751



More Words Pleas 600+ Action Verbs 9789888129775



1000+ Nouns 9789888129768

# **Idioms in Conversation**

This three-volume series contains idioms used in everyday conversations and their contexts. Each volume covers more than two hundred idioms grouped into nine themes based on figurative meanings. Each figurative idiom is illustrated with cartoon drawings to help English Language learners remember both its meaning and application.

- Volume I : Introduces readers to basic English idioms through conversations among friends mainly at home and at school.
- Volume II : Builds readers' knowledge of idioms by using conversations among friends and family members, as well as narrative texts.
- Volume III: Advances readers to a higher level of idiom usage by introducing more complex idioms in more situations, such as the workplace.



Idioms in Conversation Volume I 9789882263864



Idioms in Conversation Volume II 9789882263871



Idioms in Conversation Volume III 9789882263888

# International English in Everyday Conversation



 International English in Everyday Conversation Volume I 9789882266476



With scenarios from around the world arranged in seven different themes, this two-part series uses photos, illustrations, dialogues and other texts to introduce readers to commonly-used terms.

International English in Everyday Conversation Volume II 9789882266483

24 Secondary English
### **English Compositions: Writing Guide for O-Level**



English
 Compositions:
 Writing Guide for
 O-Level Book A
 9789813165113



Compositions: Writing Guide for O-Level Book B 9789813165120 Focusing on two key aspects of writing, this series helps students to improve competency in English and confidence in tackling composition writing assignments. Diligent usage of this two-book series will strengthen the content of students' writing and sharpen their language skills, developing them to become skilled writers.

The books are packed with various features, such as examples and explanations, infographics, and exercises that help clarify, relate, and reinforce concepts and skills learnt from this series. Online resources are also available for download.

Book A focuses on content:

- · Learn to write various composition types, including short stories
- Kick-start writing with annotated model composition and composition outlines
- · Build content and generate ideas with clear and practical instructions provided

Book B focuses on language:

- · Learn to write concise, effective sentences and paragraphs
- Analyse common errors and how to avoid them
- Discover elements of a good composition

### **Just Write Composition Guide**



Just Write Composition Guide for Lower Secondary 9789810197216



Just Write Composition Guide for Upper Secondary 9789810119232

This two-book series is a handy guide for writing great expository, argumentative, descriptive and narrative essays.

- Analyse question requirements, uncover assumptions and examine implications
- Identify purpose, audience, tone and perspective that is appropriate for essays
- Write strong hooks, transit systematically from paragraphs and develop a thesis statement
- Organise ideas coherently
- Complete essays with maximum impact

Model essays by students are included in these guide books. They come with useful notes and suggestions by the author to help students build general knowledge and critical thinking skills. The model essays cover a wide range of topics and issues.

#### **Read Smart to Write Well**



Read Smart to Write Well – Lower Secondary English 9789814824842



Read Smart to Write Well – Upper Secondary English 9789814684002

*Read Smart to Write Well* brings powerful strategies together to help students write confidently for each topic that is being presented. Meant for use either in the classroom or at home, it is a title that is appreciated by students who strive to become better writers.

It features annotations that help with comprehension and building of students' vocabulary. In addition, it offers writing tips, question analysis, and model essays that provide guidance for students' writing and three carefully crafted essay questions based on each topic for additional practice.

25 Secondary English

# Stay connected with us on social media!



@mceducation @mc名创教育

+	Math in Focus	28
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+	Mathematics Matters	56
+	New Mathematics Counts	61
+	Additional Maths 360	68
+	Maths 360	75
+	Supplementary Materials	79

Grade 6 – 8 Age 13 – 15



# **Product Introduction**

This series builds upon learners' understanding of mathematical concepts gained in earlier grades to ensure a smooth progression in their learning journey.

Aligned to Common Core State Standards for U.S. classrooms, this series has been designed to **strengthen learners' understanding of complex mathematical concepts** and enhance their problem-solving and critical thinking skills.

This series is also available for Preschool and Elementary level.



### **Core Components**

### **Teacher Resources**

#### **Student Book**





**Student Book Course 1A** 9780547559360

Grade 6 (Age 13)

Grade 7 (Age 14)

Grade 8 (Age 15) **Student Book Course 1B** 9780547560120

Student Book Course 2A 9780547560076

**Student Book Course 2B** 9780547560106

**Student Book Course 3A** 9780547560113

Student Book Course 3B 9780547560090 Teacher's Edition Course 1A 9780547561004

Teacher's Edition Course 1B 9780547560960

Teacher's Edition Course 2A 9780547561035

Teacher's Edition Course 2B 9780547561011

Teacher's Edition Course 3A 9780547561059

Teacher's Edition Course 3B 9780547560984 **Solutions Key Course 1** 9780547579108

**Solutions Key Course 2** 9780547579115

**Solutions Key Course 3** 9780547579139





Grade 6	(Age 13)	Activity Book Course 1 9780547578972	Extra Practice Course 1A 9780547578965 Extra Practice Course 1B 9780547578996	Enrichment Course 1 9780547578873	Assessments Course 1 9780547579030	<b>Reteach</b> <b>Course 1A</b> 9780547579160 <b>Reteach</b> <b>Course 1B</b> 9780547579122
Grade 7	(Age 14)	Activity Book Course 2 9780547579054	Extra Practice Course 2A 9780547579023 Extra Practice Course 2B 9780547579085	<b>Enrichment</b> <b>Course 2</b> 9780547578941	Assessments Course 2 9780547579047	<b>Reteach</b> Course 2A 9780547578835 <b>Reteach</b> Course 2B 9780547578842
Grade 8	(Age 15)	Activity Book Course 3 9780547578989	Extra Practice Course 3A 9780547579078 Extra Practice Course 3B 9780547579009	<b>Enrichment</b> <b>Course 3</b> 9780547579016	Assessments Course 3 9780547579061	<b>Reteach</b> <b>Course 3A</b> 9780547578859 <b>Reteach</b> <b>Course 3B</b> 9780547578866

# **Builds a Solid Foundation for Problem-solving**

Concepts in this series are introduced through multiple representations using the Learn-Consolidate-Apply approach used in lower grades. This helps learners visualise and understand difficult and complex concepts. Once they have a clear understanding of these concepts, they are able to think critically and apply what they learnt in solving problem sums at higher difficulty levels.

### Learn

Diagrams, specific learning tasks and worked examples help learners grasp concepts at advanced levels.



Comprehensive lesson plans with pacing suggestions, teaching strategies and other resources within *Teacher's Edition* help teachers to conduct lessons, teach and assess learners effectively.





### **Consolidate & Apply**

Learners are provided opportunities to delve deeper into understanding each concept. As they encounter each concept in various representations, and at greater complexity, learners develop connections, strengthen skills and achieve fluency in problem-solving.



Enrichment

Learners can extend their learning and establish new connections as they collaborate and use tools to apply and practise skills learnt, as well as communicate their reasoning processes.



Student Book

Opportunities are made available in the series to help learners consolidate the skills and concepts learnt. Using these resources, learners can assess and improve on their learning.

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Student Book

Assessments



### 2020

# **Product Introduction**

Mathematicians are, firstly, problem solvers. When children cannot find the meaning in numbers and symbols, problem solving is a struggle. *Math in Focus® Singapore Math® by Marshall Cavendish® 2020* builds on the successful formula of the previous editions to help learners learn the language of math. Through hands-on learning, visualisation, and pictorial representations, their understanding, confidence, and love for math grows.

*Math in Focus® 2020* delivers the program's most extensive revisions since its release. Aligned to match the shifts in Singapore's curriculum and offer teachers and learners an unparallelled digital experience, *Math in Focus®* ensures teachers and learners approach each math lesson with the enthusiasm and confidence that has proven to yield success.

This series is also available for Preschool and Elementary level.







# Ensure mastery of concepts through a learning experience built on sound pedagogy

*Math in Focus*<sup>®</sup> 2020 leverages on global practices and research to employ a unique approach based on powerful visual models, engaging hands-on activities, and a consistent K-8 pedagogical approach to equip learners with critical-thinking skills, positive attitudes, and confidence needed to set the stage for achievement.



Student Book

MATH IN FOCUS 2020



Classroom Poster

39

Write down how you would approach the problem. Can you explain the rationale of your approach to solve the problem? Does your approach work?

STEP 4 Check your answer.

Ste24 Cneck your diswer.
Ask yourself the following questions:
How can I check my answer?
Is my answer reasonable?
Are all the conditions related to the problem satisfied?
Are there other alternatives to solving this problem?

# Develop mathematical fluency with an emphasis on problem-solving activities

Mathematicians are, firstly, problem solvers and *Math in Focus® 2020* recognises that. As such, the series places problem-solving activities at the heart of the learning experience. From beginning each lesson with learner exploration to classroom discussions, learners are guided in acquiring and applying concepts and skills to non-routine, open-ended, and real-world problems.



Student Book



Student Book





# Empower teachers through powerful teaching support to meet the needs of learners

Instructional strategies and tips are embedded across *Math in Focus® 2020* to highlight key mathematical concepts and skills for classrooms of diverse learners. This series guides and empowers teachers, including new or non-specialist teachers, in stimulating mathematical thinking and deepening conceptual understanding.

Math Background outlines the significance of key concepts and how they apply in a real-world context. It shows how prior knowledge is linked to the learning objectives	And the state of t	Chapter of the second	er Overview ti us dydra b sił price asó in differet wys including ben dhi, ce o ukistenijo menony of bi latter cad	7         Note that working problems on the operation of problems of the operation of the ope	After selfs gives faire is poors, faire ter is the poor is Doo. You many poors, it turn $\begin{array}{c} \begin{array}{c} x \\ y \\ \hline \\ \hline$	• 4) point: 1) the gives one-third of of v, does Data board? • Nite algobistic expression.
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vocabulary to be taught, and the Common Core State Standards for mathematical content and practices.						Chapter Planning Golda 🥌 🕬

# Differentiated instruction that makes sense

*Math in Focus*<sup>®</sup> 2020 caters to a myriad of learning needs through carefully chosen activities and resources to support all kinds of learners. From learners requiring more support, on-level to advanced learners, this series provides differentiated instruction, aiding all learners to make mathematical connections and build mastery.







Grade 7 – 12 Age 13 – 18



# **Product Introduction**

Developed with the users' needs in mind, *Discovering Mathematics* series is designed to inspire learners to be independent learners of tomorrow.

Discover how teachers can leverage resources to **create engaging and interactive lessons**. The approach used in this series generates learners' interest in mathematics by associating mathematical concepts with real-life applications. A wide array of complementary digital resources also encourages students to conduct self-directed learning with ease.

This series is also adapted to:

Discover Maths (CAPS aligned), adopted in South Africa, English text

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For learners who wish to extend their learning, additional modules for Grades 10 – 12 are available. To find out more, contact our education consultants.

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		Core Com	ponents	Теа	icher Resou	urces
		Coursebook	e-Textbook (Students)	e-Textbook (Teachers)	Teacher's Guide	Teacher's Manual Discovering
		Discovering (MA Mathematics Discovering (MA Mathematics (A) Mathematics			Discovering Athematics Discovering Mathematics	Mathematics Teacher's Manual Mathematics Teacher's Manual 6B
Grade 7	(Age 13)	Coursebook 1A 9789882084247 Coursebook 1B 9789882084254	<b>e-Textbook 1A</b> 9789882184831 <b>e-Textbook 1B</b> 9789882184848	<b>e-Textbook 1A</b> 9789882184954 <b>e-Textbook 1B</b> 9789882184961	Teacher's Guide 1A 9789882084308 Teacher's Guide 1B 9789882084315	<b>Teacher's Manual 1A</b> 9789882184718 <b>Teacher's Manual 1B</b> 9789882184725
Grade 8	(Age 14)	Coursebook 2A 9789882084261 Coursebook 2B 9789882084278	e-Textbook 2A 9789882184855 e-Textbook 2B 9789882184862	<b>e-Textbook 2A</b> 9789882184978 <b>e-Textbook 2B</b> 9789882184985	<b>Teacher's Guide 2A</b> 9789882084322 <b>Teacher's Guide 2B</b> 9789882084339	Teacher's Manual 2A 9789882184732 Teacher's Manual 2B 9789882184749
Grade 9	(Age 15)	Coursebook 3A 9789882084285 Coursebook 3B 9789882084292	e-Textbook 3A 9789882184879 e-Textbook 3B 9789882184886	e-Textbook 3A 9789882184992 e-Textbook 3B 9789882185005	<b>Teacher's Guide 3A</b> 9789882084346 <b>Teacher's Guide 3B</b> 9789882084353	Teacher's Manual 3A 9789882184756 Teacher's Manual 3B 9789882184763
Grade 10	(Age 16)	Coursebook 4A 9789882084483 Coursebook 4B 9789882084490	e-Textbook 4A 9789882185951 e-Textbook 4B 9789882185968	e-Textbook 4A 9789882186231 e-Textbook 4B 9789882186248	Teacher's Guide 4A 9789882084582 Teacher's Guide 4B 9789882084599	<b>Teacher's Manual 4</b> 9789882185371
Grade 11	(Age 17)	Coursebook 5A 9789882084506 Coursebook 5B 9789882084513	e-Textbook 5A 9789882185975 e-Textbook 5B 9789882185982	<b>e-Textbook 5A</b> 9789882186255 <b>e-Textbook 5B</b> 9789882186262	Teacher's Guide 5A 9789882084605 Teacher's Guide 5B 9789882084612	Teacher's Manual 5A 9789882185388 Teacher's Manual 5B 9789882180000
Grade 12	(Age 18)	Coursebook 6A 9789882084520 Coursebook 6B 9789882084537	e-Textbook 6A 9789888092000 e-Textbook 6B 9789888092017	e-Textbook 6A 9789888092062 e-Textbook 6B 9789888092079	<b>Teacher's Guide 6A</b> 9789882084629 <b>Teacher's Guide 6B</b> 9789882084636	Teacher's Manual 6A 9789882185395 Teacher's Manual 6B 9789888093892

**Junior Secondary** 

**Senior Secondary** 

	Tea	cher Resources	Supporting Resources	Digital
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Grade 7	(Age 13)	Question Bank 1 9789882184770		
Grade 8	(Age 14)	Question Bank 2 9789882184787		
Grade 9	(Age 15)	Question Bank 3 9789882184794		
Grade 10	(Age 16)	Question Bank 4A 9789882185753 Question Bank 4B 9789882185760	Supplementary Worksheet 4A 9789882185470 Supplementary Worksheet 4B 9789882185487	
Grade 11	(Age 17)	Question Bank 5A 9789882185265 Question Bank 5B 9789882185272	Supplementary Worksheet 5A 9789882185494 Supplementary Worksheet 5B 9789882185500	
Grade 12	(Age 18)	Question Bank 6A 9789882185777 Question Bank 6B 9789888093915	Supplementary Worksheet 6A 9789882185517 Supplementary Worksheet 6B	

## **Cultivates Self-Directed Learners**

Learning features and aligned practices facilitate self-learning and allow learners to learn on their own.



Textbook

**DISCOVERING MATHEMATICS** 

# Learners can use activities from *IT Zone*, *Investigation* and *Enrichment* to explore mathematical concepts interactively and **extend** their **learning beyond the classroom**.



# **Conducts Interesting Interactive Lessons**

Teachers can leverage IT and supplementary digital resources from the series to make learning fun and interactive for learners.

# Using interactive learning materials found in the *Solution Guide CD*, learners can **revisit topics in a purposeful manner** on their own.



# **Integrates Mathematics into Everyday Life**

By integrating mathematics into daily life, learners can appreciate the use of mathematics and discover that it is more than an academic subject.



*Mathematics World* opens a new chapter by associating the topic to learners' everyday life to **generate interest**.

Interesting scenarios are used to guide learners in appreciating the use of mathematics in everyday life.

Chapter Opening



# **Instils Examination Confidence**

Teachers and students can use the ample practices provided for assessment and reinforcement of the learning process. Over time, students will be more confident when they sit for school examinations.







## **Product Introduction**

The Marshall Cavendish Education Maths Ahead Grades 7 to 9 Series is designed for students preparing for the Cambridge Lower Secondary Mathematics 0862 syllabuses. This series comprises of a total of 3 grade levels with a Student's book, Workbook, Teacher's guide and resources for each level. The series is focused on building up the necessary mathematical knowledge and foundation to prepare students for Cambridge Upper Secondary Math courses such as the IGCSE and O Levels.

The Maths Ahead Package espouses the use of comics to enhance students' learning for the development of the 21<sup>st</sup> Century Competencies in Mathematical classroom.

Based on the paper co-written by Dr Toh Tin Lam and other writers, the use of comics in our student book aims to empower learners through the following:

- Capture Interest and impress key mathematical ideas
- Enhance and extend communication of Math concepts to facilitate understanding
- Minimise apprehension and anxiety by Increasing motivation to learn Mathematics
- Provide a bridge between Math concepts and real-life context
- Engage and encourage students to participate actively in class discussions and collaboration



Grade 7 – 10 Age 13 – 16



### **Product Introduction**

Written by experienced educators using easy-to-understand instructions, this series focuses on developing learners' conceptual understanding and mathematical thinking skills. The development of these skills is infused into the content with carefully graded problems and worked examples to enable learners of various proficiencies to learn effectively and enhance their ability to relate mathematics to other disciplines.



For learners who follow a 5-year secondary programme, the Mathematics Matters series for Grades 7 – 12 is available. To find out more, contact our education consultants.







# **Develops Deep Conceptual Understanding**

To help learners grasp concepts with ease, this series is written in a simple and easy-to-understand style. Concepts are introduced progressively from simple to abstract and are linked to the topics presented earlier to help learners develop a clear understanding of new concepts.



# **Develops Strong Mathematical Skills**

Learners develop their mathematical skills and enhance their abilities to integrate ideas and formulae in problem-solving through many opportunities provided in the series.



Chapter 6: Mathematics in Practical Situation

4 Teaching Suggestions



Detailed lesson plans and teaching instruction provided in the *Teacher's Guides* allow teachers to **plan and execute lessons with greater focus and clarity of expectations**. Teachers are also equipped with activities to strengthen and enrich learners' learning experience.




## **Product Introduction**

Using interesting and captivating ideas, this series engages learners and keeps them motivated. This series also **promotes proactive and independent learning** so that learners understand mathematics well and gain confidence to **excel in the application of mathematics**.



	Core Components	Teacher Resources
	<image/>	<image/>
Grade 7 (Age 13)	Textbook Normal (Academic) Secondary 1 9789810112288	Teacher's Resources CD-ROM 1 9789810168056
Grade 8 (Age 14)	Textbook Normal (Academic) Secondary 2 9789810109936	Teacher's Resources CD-ROM 2 9789810168063
Grade 9 (Age 15)	Textbook Normal (Academic) Secondary 3 9789810112295	Teacher's Resources CD-ROM 3 9789810168070
Grade 10 (Age 16)	Textbook Normal (Academic) Secondary 4 9789810109943	Teacher's Resources CD-ROM 4 9789810168087
Grade 11 (Age 17)	Textbook Normal (Academic) Secondary 5 9789810112424	Teacher's Resources CD-ROM 5 9789810168094

## **Keeps Learners Interested and Motivated**

To engage learners, this series infuses numerous interesting and captivating elements in their learning.





*Time-Out Activity* provides learners pit stops to **check their understanding using contextual questions**.





## Helps Learners Learn Independently and Proactively

In this series, new concepts are introduced with clear and logical guidance for easy mastery. When learners learn with ease, they are motivated to learn independently.



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Learners can use the *Revision Papers* found at the end of every chapter and *Review Papers* found at the end of the textbook to **practise and reinforce skills learnt**.

66 Secondary Mathematics

Mathematical concepts and ideas are presented clearly using annotations with diagrams and analogies so that learners have minimal difficulty in learning independently.



Textbook





**2nd Edition** 

## **Product Introduction**

This series stimulates students' interest in learning mathematical concepts and helps them develop thinking, reasoning, meta-cognitive and problem-solving skills required for higher studies in maths and other disciplines.

Various mathematical concepts and ideas are used cohesively to help learners connect maths to other subjects through the application of maths, develop deep understanding of maths and appreciate maths in its abstract form.





#### **Supporting Resources Teacher Resources** Digital **Teacher's** Resources Package ADDITIONAL 2 ADDITIONA ma ns 360 360 TEACHER RESOURCE PACKAGE **Textbook Formula Book** Animated **Teachers** Worked (eBook) (eBook) Edition **Solutions for** Selected Questions Additional Additional Additional Additional Additional Maths 360 Maths 360 Maths 360 2<sup>nd</sup> Maths 360 Maths 360 2<sup>nd</sup> Edition 2<sup>nd</sup> Edition 2<sup>nd</sup> Edition **Edition Teacher** 2<sup>nd</sup> Edition **Edition App Student Edition** e-Formula Book Enhanced Teacher's App (Volume A) 9789814879842 **Student Edition** (Volume A) Resource App (Volume A) Vanilla (with teaching Package 9789814879811 (with learning and learning 9789814879804 resources) resources) 9789814879835 9789814879828 Grade 9 - 11 (Age 15-17) Additional Additional Additional Maths 360 Maths 360 Maths 360 2<sup>nd</sup> 2<sup>nd</sup> Edition 2<sup>nd</sup> Edition **Edition Teacher Student Edition** Enhanced **Edition App** App (Volume B) **Student Edition** (Volume B) Vanilla App (Volume B) (with teaching 9789814884181 (with learning and learning resources) resources) 9789814884174 9789814884167

## **Enhances and Deepens Understanding**

Mathematical concepts are systematically introduced to ease learners' understanding of more complex topics. A multiplicity of resources in the form of graded questions provide learners of diverse abilities the appropriate level of practice to reinforce their conceptual understanding.



#### **Exam-based Worked Example**

Questions mirror actual examination questions.



The diagram shows a triangle PQR with vertices at P(-4, 9), Q(8, 1) and R(6, 11). M and N are the midpoints of PR and QR respectively.

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- (i) Find the coordinates of *M* and of *N*.
- (ii) Show that PQ = 2MN.
- (iii) Is *MN* parallel to *PQ*? Explain.

#### New Trend Questions

Learners need to explain and justify the reasoning behind their answers. Supportive, step-by-step explanations placed alongside the examples provide much-needed guidance for learners who require more support. For stronger learners, the 'Extend' feature provide the opportunity to investigate concepts further. With exercise guestions classified according to level of challenge, learners of all abilities can select questions of the appropriate difficulty level.



**Levelled Questions** 

Classified according to difficulty levels so learners can assess their competency level.



of two points. What would averaging three points mean? (i) Consider three pairs of numbers, say (7, 6), (2, 5) and (3, 7). By averaging the

x-coordinates and the y-coordinates, you will get the point  $\left(\frac{7+2+3}{2}, \frac{6+5+7}{2}\right)$ , which is (4, 6). What is the geometrical meaning of finding the average of these three points? (ii) Is it meaningful to find the average of three points by first finding the average of two of them? For example, we first find the average (or midpoint) of (7, 6) and (2, 5), which



(e, f).

#### Example 3



 $= 3(x^2 - 2x + 1^2 - 1^2) + 2$  Add and subtract  $\left(\frac{b}{2}\right)^2$  $= 3(x-1)^2 - 3 + 2$  Use the first three terms within the brackets to form a perfect square.  $= 3(x-1)^2 - 1$ 

within the brackets, where b = 2 > 0.

Since  $(x-1)^2 \ge 0$ ,  $3(x-1)^2 - 1 \ge -1$  for all real values of x. Hence f(x) has the minimum value -1.

#### **Extend Sections**

Provide learners with more challenging real-world problems or problems involving concepts that have not yet been formally covered. The sections also provide opportunities for learners to do research and write computer programs.

#### **Blue Support Text**

Provides students requiring more support with step-by-step explanations.

Tı

Ex

fur

sq

ma

f(x)

(a)

(b) Ar

(a)

 $(\mathbf{b})$ 

## **Development of Thinking Skills**

Learners are encouraged to think broadly, understanding the big picture, before diving deep to correct misconceptions and develop firm conceptual understanding.



Guided Revision Notes (Teacher's Copy) CP	napter 1 Quadratic Functions	Guidad Povision	Notoc
Solution		Guided Revision I	NOLES
$(i)  f(0)=2(0)^2-4=-4$	•	Assist teachers in their l	lesson delivery with suggested
(ii) Since $x^2 \ge 0$ , $2x^2 \ge 0$ for all real values of x and so $2x^2 - 4 \ge -4$ . Hence $f(x) \ge -4$ .		their revision for examin	nations.
Textbook Try 1			
Given $f(x) = -2x^2 + 4$ , find (i) $f(-1)$ , (ii) all possible real values of $f(x)$ .			
Answer Space	Guided Revision Notes (Teacher's Copy)	Chapter 1 Quadratic Functions	
(i) $f(-1) = -2(-1)^2 + 4 = 2$	N ( )		
(ii) Since $x^2 \ge 0$ , $-2x^2 \le 0$ for all real values of x and so $-2x^2 + 4 \le 4$ . Hence fix $x \le 4$	Name:( ) Class:		
10000 I(0) = 0	Date:		
Textbook Example 2 (completing the square, possible values of function, mi function)	Chapter 1 Quadratic Functions		
Express $f(x) = x^2 + 6x - 4$ in the form $(x - h)^2 + k$ , where h and k are constants			
<ul> <li>(i) all possible real values of f(x),</li> <li>(ii) the minimum value of f(x),</li> <li>(iii) the value of x at which the minimum value of f(x) occurs.</li> </ul>	• $(a+b)^2 = a^2 + 2ab + b^2$		
Solution	$(a-b)^2 = a^2 - 2ab + b^2$		
$f(x) = x^2 + 6x - 4$	Factorisation is the reverse process of expansion. For      The uninterpret is the value of the uninterpret of the	example, $a^{-} - 2ab + b^{-} = (a - b)^{-}$ .	
$=x^{2}+6x+(\frac{6}{2})^{2}-(\frac{6}{2})^{2}-4$	<ul> <li>The y-intercept is the value of the y-coordinate of the The y-intercept of a graph can be found by substitutin</li> </ul>	g $x = 0$ into the equation of the graph.	
$= x^{2} + 6x + 3^{2} - 3^{2} - 4$ = (x + 3)^{2} - 9 - 4	<ul> <li>The x-intercept is the value of the x-coordinate of the The x-intercept of a graph can be found by substitutin</li> </ul>	point at which the graph meets the x-axis. y = 0 into the equation of the graph.	
$=(x+3)^2-13$			
<ul> <li>Since (x + 3)<sup>2</sup> ≥ 0, (x + 3)<sup>2</sup> − 13 ≥ −13 for all real values of x. Hence f(x) ≥ −13.</li> </ul>	1.1 Maximum and Minimum Values		
(ii) The minimum value of $f(x)$ is $-13$ .	A. Concepts		
(iii) The minimum value of $f(x)$ occurs when $(x + 3)^2 = 0$ .	<ul> <li>A function is a kind of relationship in which an input y = f(x) means that y is a function of x.</li> </ul>	x has exactly one output y. The notation	
$\begin{array}{c} x+3=0\\ x=-3 \end{array}$	<ul> <li>To find a value of a function f(x), substitute a value of the function.</li> </ul>	x into the algebraic expression representing	
Textbook Try 2	<ul> <li>To find all possible real values of a function, first use</li> </ul>	the method of completing the square to	
Given $f(x) = x^2 + 3x - 6$ , find (i) all possible real values of $f(x)$ .	Express the function in the form $(x - n) + k$ , where $n$ is Textbook Activity 1A: Derive the quadratic formula	nu x are constants.	
<ul> <li>(ii) the minimum value of f(x),</li> <li>(iii) the value of x at which the minimum value of f(x) occurs</li> </ul>			
	B. Textbook Examples		
© 2020 Marshall Cavendish Education Pte Ltd GRN1-2	Textbook Example 1 (possible values of function)		
	Given $f(x) = 2x^2 - 4$ , find (i) its value when $x = 0$ .		
	<ul><li>(ii) all possible real values of f(x).</li></ul>		



#### **Animated Worked Solutions**

Maths is made relevant through real-world video clips and images that aid learners to visualize concepts and problems, thereby understanding the concepts better. Learners are guided through the solutions in a step-by-step manner.



Grade 7 – 10 Age 13 – 16



### **Product Introduction**

Using illustrations, cartoons and comics to depict mathematical concepts in a fun and unusual way, this series includes a variety of learning experiences for learners to **examine mathematics from a real-world perspective**. Learners using this series will learn to appreciate the various applications of the subject.



## **Develops Learners' Interest in Mathematics through Real-World Context**

Learning mathematics at advanced levels is supported by various resources that help learners relate to the real world. When learners find learning purposeful, they pursue the subject with greater interest.



Hands-on activities, including the use of ICT and inter-curricular context, allow students **to collaborate and apply what they have learnt to their daily life**. When they are able to use what they learn and communicate what they understood, they develop the intrinsic motivation to find out more.

p 6 Join PC.	<b>5-2</b> Converting a Fraction and a Decimal to a Percentage	3-3 Rounding Off
Image: The State	<text><text><text><text><text><text><text><text><image/><image/></text></text></text></text></text></text></text></text>	<section-header><section-header><section-header><section-header><section-header><section-header><text><text><text><text><text></text></text></text></text></text></section-header></section-header></section-header></section-header></section-header></section-header>

Teachers can help learners to **revisit and revise concepts learnt** using the detailed lesson plans and activity worksheets provided in the *Teacher's Planning Guide*.



Teacher's Planning Guide

Secondary Mathematics 77

## **Guides Learners to Understand and Learn Mathematics Independently**

Learners using this series will receive guidance from the resources provided and features designed to engage them in grasping concepts thoroughly.



Advanced -

Intermediate -

Product Type	Title
Practice	<ul> <li>Think Maths</li> <li>Perfect Guide Secondary Mathematics Normal (Academic)</li> <li>Distinction in Mathematics – Building Foundation</li> <li>Maths Problems in Real-World Contexts series</li> <li>Perfect Guide Secondary Mathematics</li> <li>Perfect Guide Additional Mathematics</li> </ul>
Guide Book	<ul> <li>Perfect Guide Secondary Mathematics Quick Revision Handbook</li> <li>Distinction in Mathematics – Revision Guide</li> </ul>
Exam and Topical Test	<ul> <li>Distinction in Mathematics – Tests and Examinations</li> <li>O-Level Maths Extra Practice</li> </ul>
	l egend:

Basic -

Practice

#### Think Maths – Normal (Academic)

In this series, to help learners manage and learn each concept well, each chapter is divided into few sections. In each of the section, learners learn the relevant sub-topics through concise notes, worked examples and apply what they have learnt in the immediate practice at the end of each section. A comprehensive revision exercise at the end of each chapter consisting of questions catergorised into three difficulty levels provides learners with the opportunity to consolidate and reinforce the application of concepts. Learners can also read tips and hints provided to clarify their thoughts and solve questions in which they face difficulty.



#### Perfect Guide Secondary Mathematics Normal (Academic)



 Perfect Guide Secondary Mathematics Normal Academic 1 9789810198770



Perfect Guide Secondary Mathematics Normal Academic 2 9789814426893



 Perfect Guide Secondary Mathematics Normal Academic 3 9789810198794

Each book in this series consists of ample exam-type questions categorised according to topics to help learners reinforce concepts learnt and build exam confidence. With this book, learners can strengthen their application of concepts in solving questions systematically using accompanied worked examples and a list of intended learning outcomes.

Secondary Mathematics 79

#### **Distinction in Mathematics – Building Foundation**



Distinction in Mathematics: Building Foundation helps learners gain a strong understanding of mathematical concepts so that they can do well in higher grades. Through sub-topics and parallel practices, learners develop a thorough understanding of each concept. Once learners have mastered the fundamentals, they can stretch their learning by attempting the challenging questions in the advanced practice section.

#### **Maths Problems in Real-World Contexts Series**

Maths Problems in Real-World Contexts is designed to help learners see the relevance of mathematics to everyday life. It aims to help learners appreciate realistic applications of mathematical concepts and skills, and to also prepare learners well in answering such contextual questions during examinations. Parts of the book include carefully-designed contextual problems to sharpen thinking and reasoning skills, a 'Remark' feature to overcome common misconceptions and attain pointers for solving the questions, fully-worked solutions to allow learners to check their answers and to encourage self-directed learning and 'Checklist' to allow learners to check for understanding and reflect on their own learning.



#### **Perfect Guide Secondary Mathematics**

Aligned to the latest Secondary Mathematics syllabus, this series provides learners with worked examples to equip them with problem-solving techniques. With content and topic arrangement in the book designed to closely follow the textbooks used in schools, learners can use the practice exercises to complement their learning, and strengthen their application and understanding of each concept.





SUPPLEMENTARY MATERIALS

#### **Perfect Guide Additional Mathematics**



Perfect Guide
 Additional
 Mathematics Book A
 9789814661164



Perfect Guide

9789810197896

Mathematics Book B

Additional

Written according to the latest Additional Mathematics syllabus, this series of two books provides learners with revision notes and worked examples to reinforce concepts learnt. With content and topic arrangement in the book designed to closely follow the textbooks used in schools, learners are able to use the questions included in these books to strengthen their understanding of each topic and practice what they have learnt.

Book A comprises topics from algebra and geometry while Book B comprises topics from geometry, trigonometry and calculus.

#### Guide Book

#### Perfect Guide Secondary Mathematics Quick Revision Handbook

Learners gain an overview to the array of questions they commonly encounter. The questions included bring to the learners' attention the skills they need to solve similar problems and concepts they are required to be familiar with.

Each chapter in these books is presented in three parts:

- (i) Let's Recall highlights to learners the prior knowledge they require before the start of each chapter
- (ii) Let's Learn summarises key points learners must know in each chapter

(iii) Let's Try consists of worked examples of three difficulty levels to familiarise learners with what they may encounter in the application of concepts from each relevant chapter



Handbook 1

9789814433808



Perfect Guide
 Secondary Mathematics
 Quick Revision
 Handbook
 'O' Level
 9789814735490

#### **Distinction in Mathematics: Revision Guide**

9789814661010

Handbook 2

This series serves as an excellent revision companion for learners looking to prepare for formal assessments. Each chapter in each book highlights to learners the main ideas with a set of *Keynotes* and accompanying exam tips. A quiz comprising a wide range of relevant questions provides learners with ample practice opportunities.



SUPPLEMENTARY MATERIALS

#### **Exam and Topical Test**

#### Distinction in Mathematics: Tests and Examinations

Designed to simulate tests and examinations, each book in the series contains:

- 6 topical test papers to provide learners with sufficient exposure to the variety of related questions and periodic revision
- A checklist at the end of each test for learners' own evaluation of learning progress
- 8 mock examination papers for learners to attempt under suggested examination conditions •
- One More Like This provides learners with similar questions for reinforcement



#### O-Level Additional Maths 360

O-Level Maths Extra Practice is a book specially designed to equip learners with effective answering techniques so that they are adequately prepared for examinations. It focuses on new trend questions designed to assess learners' conceptual understanding. The questions are organised by topics and by strands for targeted revision.

Features of the series include:

- Detailed step-by-step solutions with suggested marking scheme for learners to grade and assess their performance
- New Trend Questions that require explanation and justification
- Specimen Papers for exam practice so that learners can practise time management and be confidently prepared for the examinations





Practice Geometry and Measurement, Statistics and Probability 9789814826969



Extra Practice

978981426976

**Practice Number** 

9789814826952

and Algebra

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# Secondary Science



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	– Biology	
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	– Chemistry	
	– Biology	
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Grade 7 – 8 Age 13 – 14



## **Product Introduction**

Designed to develop a strong foundation in science by **linking scientific knowledge and skills to the real world**, this series prepares students for further in-depth study at the upper secondary level.

Scientific literacy is developed through **purposeful visuals and extensive authentic contexts**. Graphic organisers and challenging questions enable students to make connections between concepts while hands-on activities enable acquisition of process skills and promotes inquiry learning.

With majority of secondary schools in Singapore using this series, her students have been consistently top performers at the Trends in International Mathematics and Science Study (TIMSS).





### **Teacher Resources**

Workbook (Teacher's Edition) (Teacher's Edition)

**Practical Book** 

**Teacher's** Planning Guide

**Textbook eBook** (Teacher's Edition)

















(Age 13) Workbook - Teacher's Edition Volume A 9789810117443

Workbook

- Teacher's Edition

Volume B

9789810117450

**Grade 7** 

**Grade 8** 

4

(Age

**Practical Book** - Teacher's Edition Volume A 9789810117467

**Practical Book** 

- Teacher's Edition

Volume B

9789810117474

**Teacher's Planning** Guide 9781099072062

Textbook eBook - Teacher's Edition Volume A 9789813162792

Textbook eBook - Teacher's Edition Volume B 9789813162808

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## Meaningfully Connect Science Concepts through Contextualisation

Science concepts are brought to life by linking them to things that are happening around us. Thought-provoking questions encourage learners to explore scientific concepts in greater depth and apply it to the world around us.



Textbook

## **Scaffolded Learning Process**

Learning progresses from mastery of concepts to the application of concepts with 21<sup>st</sup> century skills as they complete mini projects.

	Challenge Ye	ourself				
( )	<ol> <li>The diagram be layers of a mate</li> </ol>	ow shows an elect rial, B.	rical cable. The b	undle of wires, A, is	sheathed with two	Mini Prote +
Date:				_		In test
Class:			15-			as a scientific tool to a forwater invented the kaleide
Worksheet For Science Matters Textbook Volume A, section:			11			amusing patterns that it produces.
2.1 2.1 1000		^—(i	7			<ol> <li>Cut out a 20 cm by 10 cm meters d</li> </ol>
	(a) From the lis	t below, suggest what	at materials A and	B may be made of.		edges so that the plastic residue to the right. Take the
Secure Your Basics	<ul> <li>cloth</li> <li>leather</li> </ul>		<ul> <li>rubber</li> <li>copper</li> </ul>			<ol> <li>Roll a piece of cardback of cover stays in a triangle.</li> </ol>
Without referring to the textbook, try to answer the following to	<ul> <li>pvc (poly a thin play</li> </ul>	vinyl chloride,	<ul> <li>alumin</li> <li>silver</li> </ul>	ium		plastic triangle into the cardboard cylinder. Insert the
<ol> <li>Bridges need to withstand the weight of the cars crossing it iron is too soft to be used in Bridges. Pure iron is too soft to be used in constructing bridges. Pure iron is too soft to be used in</li> </ol>	A could be o	opper, aluminium or s	ilver. B could be pvc	(polyvinyl chloride) a	rubber.	<ul> <li>In this activity, the plastic triangle functions in Step 1</li> </ul>
constructing bridges. Which of the following can be interred work of the						4. Cover one and after
A Adding carbon to iron makes iron harver and delege	(b) Give a reas	on for each of your a	memore			small pieces of coloured cellophone is highlight wrap. Place
C Steel and pure iron are good heat conductors.	(b) Give a reason for each of your answers. A is a metal that conducts electricity on I chose concert aluminium and close. B is an electrical				5. To create more interesting patterns, you can different materials of yours	
D Pure iron is bottly of a starting with there is a starting with the starting of materials W, X, Y and Z, starting with	insulator, so I chose pic or rubber. It acts as a double protection and prevents electricity from					
<ol> <li>Use the information below to list the order or harding = =</li> <li>the second substance.</li> </ol>	flowing out of the wires to items along the way.           2. Study the following table and answer the questions that follow.				To U Can use materials such as paperclips, guitter and broken crayons.	
the hardest substance with a mark when X is rubbed with it.						
Y is scratched by the other three materials and is used.     Y is scratched by the other three materials are left with a mark.				at follow.	7. Using a rubber has a	
When rapped and a		Transparency	Strength	Heat conductivity	Melting point	plastic wrap onto the cylinder. Why do use and the
A W, X, Y, Z B X Y, Z, W (C	Material A	Transparent	Moderate	Good	High	the cylinder?
C Z, X, W. Y	Material B	Transparent	Moderate	Poor	Low	Cut a piece of tracing paper into a circle
2, 1, 40 the second	Material C	Opaque	High	Good	High	through the centre of the piece
<ol> <li>Jessica heated 100 cm<sup>2</sup> of water boiled first. From this, Jessica concluded that Jessica was wrong containing 100 cm<sup>2</sup> of water boiled first. Why would you say that Jessica was wrong</li> </ol>	(a) Which mate	rial (A, B or C) is m	ost suitable for m	aking glass laborate	ry beakers? Explain	steps 6.7
has a lower boiling point than 150 cm of the second by the second to the substance.	your answe	5. 	-theory of the second		of the baseline its stars	
A The boiling point of a substance is not affected by the substance is heated.	Material A. It is transparent which allows us to easily observe the contents of the beaker. It also			observe the contents		
B The boiling point of a substance depends on the amount of all boiling point of a substance depends on how fast the substance boils.	nas a right metting pulit, so the beaker opes not mett when used to heat substances/chemicals.			when used to near so	homemane land	
D The boiling point of a substance						into the home-
						ms when you turn the cylinder.
		and the set				n to a few classmates how reflection on made kaleid
	- aver Matshall Calendari E	accessor row and			within a literature	ty, the subscope. Then, allow them to explain it back to use the different patterns in allow them to explain it back to use the different patterns in allow them to explain it back to use the different patterns in allow the subscope.
Worksbeer z					106	to you to see if they understand you
© 2014 Marshall Cavendish Education Pre 1M					100	Chapter 9
C 2014 Martine						

Secondary Science

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Workbook

## First-hand Experience to Understanding Science Concepts

Learners explore scientific concepts through experimentation. Experiments and activities have been carefully designed with links to real-life contexts so that learners are able to see concepts applied in real-life occurrences.

## Supports Teaching with Teacher's Guide

The user-friendly Teacher's Guide makes teaching easy for any teacher with resources such as:

- Detailed lesson plans
- Background information on topic for teachers who are generalists
- Sections where common misconceptions are explained
- Conceptual enrichment for advanced learners and reinforcement for struggling learners



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Short write-ups link science

concepts to naturallyoccurring phenomena in

the environment.

Practical Book

Teacher's Guide

Extensive Digital Resources help teachers with lesson delivery. Animated videos explain concepts while interactive activities reinforce learning. Quizzes allow teachers to assess understanding.



Grade 7 – 9 Age 13 – 15



## **Product Introduction**

Based on the United Kingdom National Curriculum, this series equips lower secondary science students with the essential knowledge and skills for a strong foundation in science.

Through the **constructivist-inquiry approach**, students become active learners acquiring scientific concepts, skills and processes through experiential learning.



\*Minimum order quantity required



## **Active Learning**

Encouraging learners to construct their own learning process, think critically and develop habits of mind and attitudes for scientific inquiry, this series uses a pro-active learning approach through engaging games and hands-on exercises.



Secondary Science

Workbook

## Aids Visualisation of Concepts

Attractive concept cartoons effectively capture learners' attention and simplify difficult concepts to enable clear understanding and retention of knowledge. Pictorial representation of concepts help learners better visualise and grasp concepts.

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## **Acquire Higher-order Thinking Skills**

Students are challenged to think deeply and critically as they problem-solve issues raised in *Think-tank* sections. *Think About It* sections encourage students to apply process skills learnt as they explore and evaluate solutions.



## **Assess Learning**

*Review Questions* at the end of each chapter act as a formative assessment tool for students to evaluate their understanding of the key concepts covered for the chapter.



Textbook

Grade 7 – 9

Age 13 – 15



## **Product Introduction**

This series is based on Cambridge Lower Secondary Science Curriculum Framework (1113) for Stages 7, 8 and 9.

The series uses the constructivist-inquiry approach to offer a learner-centred solution, helping learners acquire scientific concepts, processes and skills. The curriculum content is structured using a spiral progression, allowing learners to revisit concepts and skills at different stages with increasing depth, thus ensuring a strong foundation.

The series makes use of vibrant photographs, clear infographics, inquiry questions, activities and case studies to deliver an engaging and enjoyable science learning experience.

This series has not been through the Cambridge International endorsement process.





## **Captivate Learners with Rich Visuals**

Science Ahead is designed to be visually-engaging to captivate learners through the rich visuals and easy-to-understand infographics which can boost interest and confidence in learning science.



Student Book


## **Real-world Relevance in Learning**

Up-to-date information on the new developments in science and relevant case studies help students to connect science to the real world and gain appreciation for science in their lives.



Secondary Science 97



Student Book

#### Activities can provide opportunities to develop essential science skills and attitudes to be successful critical thinkers.

They are related to daily life to allow students to appreciate the relevance of science in their lives.

ACTIVITY 6.3 IN WHAT WAYS DO DOMESTIC	b Draw or pasts the photograph is a mass of actional. For example, you can write that the cat has grean eyes, a mass occar three physical characteristics of each call. For example, you can write that the cat has grean eyes, a mass occar with brown patches and a long, bushy tail.
CATS VARY?	Cat 1
To investigate variation in domentic cats           To present data in the form of a bar chart           To make conclusions from data presented in a bar chart	
MATERIALS Coloured pencils, glue, camera or smartphone with camera (optional), computer was spreadsheet software (optional), printer (optional)	
SKILLS Observing, communicating, classifying, comparing, inferring	
Different breeds of domestic cats look different from one anothor, and any in a second pro-	
V Maine Con	Physical characteristics:
American shorphair	Cat 2
4 simes	Physical characteristics:
Observe the cats in or around your school or neighbourhood.	
a What variation did you observe among these cats? Write down five of them.	
	Classifying Plants and Anim

Secondary Science

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## **Consolidate and Evaluate Learning**

Effective and timely assessments to help learners consolidate learning. They serve as useful revision tools that allow learners to recall and apply concepts to new contexts, thereby reinforcing concepts learnt.



Section A: Multiple-choice questions Choose the most suitable answer (A, B, C or D) and write it in the brackets provided.			Write the correct answers in the spaces provided.  Study the pictures of broccoil and kale. They look different but they have the same scientific name,
Living things of the same share the most similarities in their characteristics.			Brassica oleracea.
A kingdom B class C family D species	(	)	four read mate
<ul> <li>Which of the following pairs of living things can breed with each other naturally to produce fertile offspring?</li> <li>A A bacterium and a yeast</li> </ul>			
A pine tree and a cycad     C A male and female domestic cat			
D An elephant and a giraffe     Which of the following is a similarity between a fern and a moss?	(	)	
A Both are vascular plants.			
B Both are seedless plants. C Both are flowering plants			-3
D Both produce cones for reproduction.	(	)	▲ Broccoli ▲ Kale
Animal X does not have a backbone and has gills for breathing. Which of the following is animal X most likely to be?			Do the plants belong to the same genus and species?
A Shark			Milite down one difference you observe between broccoli and tale
B Crab C Tarihole			White down one dimension you observe between broccon and vale.
D Whale	(	)	
A spider is not classified as an insect because it			
A has an exercisation			c What are the differences in characteristics within a species called?
B has jointed legs			
C does not have a pair of antennae D does not have a segmented book	(	)	
	(	,	Write down one similarity and one difference between the plants below.
			a Angiosperms and gymnosperms
			Similarity:
			Difference:
Chapter 6			Classifying Plants and Animals
			14/0-1/4
			WORKD
Devision workshoots			europative accomment <b>to</b>
Revision worksheets s	erv	e as	summative assessment LO

## **Support Teachers for Effective Lesson Delivery**

A comprehensive Teacher's Guide which supports both new and experienced teachers for effective lesson delivery. Essential resources are provided to equip teachers to further engage students and enhance their learning experience.

© 2020 Marahai Cavendah Education P	CHAPTE LIVING TH SCHEME OF N Suggested time frame: 18-1 Teaching sequence	R 3	S period is approximately 40 minutes.) Learning outcome(s)*	Vocabulary	Resources and material(a)	•	Provides an outline of curriculum content including critical details such as time frame, learning outcomes and resources to help teachers <b>plan</b> <b>their lessons effectively</b>
eLtd	3.1 What Are the Characteristics of Living Things?	2	<ul> <li>Identify seven characteristics of living things and reliate them to a variety of organisms found locally and beyond.</li> </ul>	Nutrition     Growth     Movement     Sensitivity     Respiration     Reproduction     Excretion     Stomata     Skin     Lungs     Kidneys	<ul> <li>Student Book, pp. 43–8</li> <li>Workbook, Ashiyi 31, p. 25</li> <li>Teacher's Guida, pp. 25–26</li> </ul>		Editable version is available to meet teachers' needs.
	3.2 Calls – The Basic Units of Life	2	Understand what a coll is.     Evaluate the involution of questions, evidence and explanations. (SE)     Make colevariations or measurements. (SE)     Use tables, charts or graphs to present results. (SE)	Cell Childuar organism     Unicellular organism     Multicellular organism     Multicellular     organisms     Mcroscope     Specimen     Specimen     Stage clp     Coarse adjustment knob     Fine adjustment knob     Power switch     Objective lens     Stage	Student Book, pp. 49–51     Workbook, Activity 32, p. 28, Activity     3, pp. 27–29     Teacher's Guide, pp. 20–27		
22	"SE' denotes 'Scientific Enqu	uiry cation Pte Ltd		- Guye	1		

Teacher's Guide

#### SCIENCE AHEAD INTERNATIONAL LOWER SECONDARY



PowerPoint Slides with Teaching Notes





## **Product Introduction**

In view of the changing needs of society and the rapid development of science and technology in the world, this series is developed with the aim of laying a solid foundation in learners before they move on to develop the necessary scientific and technological knowledge and skills needed for the 21<sup>st</sup> century.

With a neat arrangement and attractive content, the series uses daily life examples to illustrate scientific principles and concepts, helping learners to connect science to their daily lives. Additional information and fun learning activities, such as 'Scientific investigations' and 'STEM (Science, Technology, Engineering and Mathematics) activities', are provided to encourage learners to integrate and apply scientific knowledge in problem-solving.

Available in English and Chinese text.



## Core Components | Teacher Resources

#### **Textbook** Workbook **Textbook** Workbook (Teacher's Edition)(Teacher's Edition) INSPIRING SCIENCE INSPIRING SCIENCE INSPIRING INSPIRING SCIENCE 1A SCIENCE 1A Inspiring Science INSPIRING SCIENCE İnspiring Science INSPIRING SCIENCE

#### **Digital Resources**

- E-books (Student's Edition)
- E-books (Teacher's Edition)
- Experiment Videos
- Animations
- AR Apps



## Learning through Infographics

Infographics are extensively used in the series to help learners master scientific concepts quickly. They are used to express complex ideas in a creative and easy-to-understand way.



## **Cultivating the Spirit of Scientific Investigation**

Relevant science process skills are specified in each experiment to help students understand the skills involved in scientific investigation. Exploratory experiments throughout the textbook series help students develop a positive attitude towards science.



## **Encouraging Creative Exploration**

Four types of STEM information and activities are provided in the series to ignite students' creativity. Not only do they help students develop related skills and ways of thinking systematically, they also encourage students to integrate and apply scientific knowledge in solving daily life problems.

### Daily STEM





Body fat percentage is one of the factors that affects the resistance of the human body. A *body fat meter* makes use of this property to check our body fat ratio. When we hold the grips of the meter with our hands, a close circuit is formed so that the meter can set a very weak current through our body. By checking the resistance of our body, the meter can calculate our body fat percentage.



Examples of everyday products illustrate the role STEM plays in their invention and improvement, and help learners connect scientific concepts with society.

## Hands-on STEM



Activities allow students to have hands-on experience in making STEM products using simple and environmentally-friendly materials.

## Makers' Lab



Activities encourage learners to use the skills acquired in the experiment to design and make products.



Activities stimulate learners' creativity and develop their skills in problem-solving, decision-making, communication, cooperation and presentation.





## **Product Introduction**

Designed to promote learning with understanding while **cultivating essential** 21<sup>st</sup> century competencies, students are engaged in their learning as they build foundational knowledge and develop critical higher-order thinking skills.

Learning concepts are engaging and easy with attractive infographics that simplify complex information to aid conceptual understanding. Carefully-designed activities enable experiential learning while authentic contexts show conceptual connections to real life.



For learners who follow the combined science stream, the DISCOVER series for Grades 9 – 11 is available for consideration. To find out more, contact our education consultants.









# **Trigger Learning through Inquiry**

Attractive and stunning visuals in each chapter opener interest and engage learners, piquing their interest on the chapter. A short write-up and *Let's Explore* questions lead learners to think about the concepts, encouraging discussion and exploration.

Questions related to the topic **encourage discussion** about the topic.

Physics Matters Textbook

animations to explain concepts.



Available on: me





Engaging and animated explanations provide a step-by-step approach to **reinforce learners' conceptual understanding**.

Animated and multimedia-rich digital resources are available to support inquiry learning and enable teachers who are pressed for time to use the

This content is also available for learners with subscribed accounts. For a demonstration, contact our education consultants.



## Easy-to-Understand Complex Concepts

Infographics break down complex concepts into easy to understand bite-sized pieces to help learners grasp complex concepts easily.

Abstract concepts are made easier to visualise with **diagrams and explanations**.

Physics Matters Textbook

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## Develop Global Awareness

Each chapter ends off with an article showcasing interesting and current applications to concepts covered in the chapter. Learners are spurred to think critically with questions requiring the application of science concepts learnt as they discuss issues raised.

Learners **develop 21**<sup>st</sup> ← **century skills** as they complete specially designed activities.



**Nurture Self-directed Learners** 

Self-diagnostic tools and worked examples allow learners to periodically check their learning progress.

		Questions		Toythook		them identify concepts they need to work on.				
Learning objectives	Multiple- Choice	Structured	Free- Response	section(s)						
(a) State that chlorophyll traps light energy, and converts it into chemical energy for the formation of detection.	7	1		7.1						
(b) State the equation, in words and		1		H						
(c) Investigate and discuss the factors offecting the rate of photosynthesis		3, 4, 5	2	$\vdash$	(c) Sugges	t two reasons why the measurement in (b) is not necessarily the same as the rate of				
(d) Discuss limiting factors that can affect the rate of photosynthesis		2, 3	2	+	the pro	of the following:				
<ul> <li>(e) Identify and label the various cellular and tissue structures of a dicotyledonous leaf as seen under the</li> </ul>	4, 5				water to	aken up by the shoot will be used in photosynthesis. / Water taken up may be used ns such as hydrolysis. / Water taken up may be used to maintain plant turglidity.				
(f) Relate how the structure of the leaf is adopted to its functions	1, 2, 3, 6	1.6	1	+						
(g) Describe the intake of carbon dioxide	5				(d) State	two factors that might affect the shoot's rate of water loss.				
50 Worksheet 6			© 2014 Marsh	ull Cavendish	Worked Exam Explain how a Thought Proc Which part What proc What envir Answer Points to co 1. Water sollaco 2. The cel 3. Water sollaco memb 4. The w	plan tabloots water. Plant absorbs water. Set Description of the set of th	quootione.			
					hair <sup>ci</sup> in wat ceils l	ells use active transport to absorb dassoned in-re- er, their movement into the plant cells will lower the water potential, and bring water into the by osmosis.	Biology			



## **Product Introduction**

This series of textbooks and practical books for Physics, Chemistry and Biology contains **comprehensive content matter presented in simple and concise language for non-native English speakers** to learn and understand science concepts. Information is illustrated with clear and attractive photos and diagrams to aid understanding.

This series is written in accordance to the Curriculum and Assessment Guide (Secondary 4-6), which was jointly prepared by the Curriculum Development Council and the Hong Kong Examinations and Assessment Authority. It caters to schools which follow the combined science stream (3-year upper secondary science programme).



For learners who wish to extend their learning further, elective units for Grades 10 – 12 are available for consideration. To find out more, contact our education consultants.





\*Minimum order quantity required



## **Master Concepts with Ease**

Purposefully-designed activities set in familiar contexts guide students to develop the concepts of evidence and the skills of scientific inquiry as they identify, apply, conduct, organise, interpret, and evaluate conclusions from an investigation.



**DISCOVERING SERIES** 

## Cater to Different Levels of Learning

A wide variety of exercises provide ample practice for learners to put newly acquired concepts into practice. The questions are carefully crafted to cater to the learners of diverse learning abilities to suit their needs. Accompanying solutions give learners a timely review of their progress.

The section number for each question is given for easy reference to the concept covered in the chapter.

Questions are divided into three levels of difficulty to cater to different learning needs.

2.

2.2

\*\*



Physics Textbook

## **Develop an Awareness of the Applications of Science**

Sections such as the *STSE Zone and More to Know* provide in-depth investigations of issues associated with interconnections between science, technology, society, and the environment. The questions for discussion require students to express their views clearly and logically to enhance their skills in critical thinking and communication.

<section-header><ul> <li>A contract of a /li></ul></section-header>	Per III	<image/> <image/> <section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text><text><image/><section-header><section-header></section-header></section-header></text></text></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	Probing questions appear throughout the main text to <b>assess the understanding</b> of learners and <b>help them</b> <b>apply knowledge</b> .
<ol> <li>It is well known that eating vegetables is good for our health. Vectores site and underweight after acting only vegetables for a a long.</li> <li>Design a healthy mean for a person who would like to lose weight.</li> <li>Search for information from the ibrary or on the Internet about the symptome, health effects and treatments of anoresia nervous.</li> </ol>	fmy do prodo 07 timer t. t. t. t. t. t. t. t. t. t. t. t. t.	Biology Textbool	k



Grade 10 – 11 Age 15 – 17



## **Product Introduction**

Marshall Cavendish Education Cambridge IGCSE<sup>™</sup> Physics, Chemistry and Biology are comprehensive two-year programmes designed to support learners with their study of the Cambridge IGCSE and IGCSE (9-1) Physics (0625/0972), Chemistry (0620/0971) and Biology (0610/0970) syllabuses.

Developed based on **robust research**, these series bring Science learning to life by focusing on **real-life examples** to which learners can relate. They are designed to excite and engage learners to be curious about scientific concepts, and to **promote a deep understanding of topics**. This is done by giving learners plenty of opportunities to practise learnt skills, reflect on concepts and share, discuss or journal what they have learnt.

Each series consists of both **print and digital learning resources that support blended learning**. This provides learners with a more complete and flexible learning experience.

Recognising that there is a potentially diverse student population whose **first language is not English**, these series use **simple and clear language** with plenty of visual representations and also feature a **mix of global and Asian examples for the international audience**.

They also cater to learners at **various levels of learning readiness** by providing additional support and enrichment resources. Overall, these series will provide learners with scientific skills and knowledge for success, and nurture them into confident critical thinkers who are ready for the future.

The titles in this series are endorsed by Cambridge Assessment International Education to support the syllabus for examination from 2023.



## **Reduce Learning Obstacles and Achieve Proficiency in Concepts**

Developed based on robust research, this series is designed for learners of different learning readiness as it will guide them in overcoming learning obstacles and foster a deeper understanding of concepts. It also promotes understanding among international learners whose first language is not English as the content uses simple and clear language. With emphasis on real-life relevance, learning becomes tangible and meaningful.





MCE Cambridge IGCSE Chemistry Student's Book

Secondary Science

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# **Build Learners' Confidence and Exam-Readiness**

With many assessment opportunities to consolidate and reinforce learning, this series will build learners' confidence and exam-readiness. Learners are guided to apply their knowledge to different scenarios that will hone their process, practical and problem-solving skills.



MCE Cambridge IGCSE Physics Student's Book





MCE Cambridge IGCSE Chemistry Practical Workbook

119

## Prepare Learners for the Future with 21<sup>st</sup> Century Competencies

In this series, there are additional information and activities based on real-world contexts which can promote engagement and encourage exploration. Learners will be equipped with 21<sup>st</sup> century competencies as they extend their learning and expand their knowledge through these activities.

> Projects that feature realworld situations will allow learners to practise applying what they have learned and develop 21<sup>st</sup> century skills.



MCE Cambridge IGCSE Chemistry Theory Workbook

# Promote Global Awareness with International Context

Catered for the international audience, this series offers a mix of global and Asian examples, providing a sense of familiarity and relevance. Learning becomes relatable and meaningful as it is based on contexts which learners may have encountered before.



MCE Cambridge IGCSE Chemistry Student's Book

A force can change the size and shape of dough.



MCE Cambridge IGCSE Physics Student's Book

# Enhance Teaching and Learning Effectiveness with Digital Resources

Accompanied with online digital resources, this series allows face-to-face and online learning to take place, and learners can also revisit the resources at their own pace for their revision. It is designed to support both new and experienced educators in delivering exciting and quality lessons as the resources provide both flexibility and convenience in lesson planning.

Editable Scheme of Work\* and lesson plans\* are available to assist educators in planning lessons effectively and provide flexibility in catering to learning needs.

**PowerPoint slides**\* and **Question Bank**\* are provided to help educators **save time on lesson preparation** and they are also **editable** to allow educators to customise and pitch the lessons accordingly.





#### 3.1 Diffusion (pp. 35–42) Note: Ask students to read Student's Book pp. 35–42. (If possible, this should take place as a pre-lesson acti

aone outside or curriculim time, a day or two anead or the lesson. This would allow students to think about th content and come up with specific questions they may want to ask in dass.) 3 Highlight to students the learning objectives of this section.

#### MCE Cambridge IGCSE Biology Teacher's Guide



Digital Resources

# The eBooks\* are **annotatable** which allow learners to **save their work online.** The **Watch feature** found in the Student's Book can also be accessed using the eBooks.

\*These resources have not been through the Cambridge International endorsement process.



Annotatable Enhanced eBooks

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Secondary Science Grade 7 - 11

# Science, Right On!



Science, Right On! is the 21<sup>st</sup> century approach to learning which uses highly interactive science content with rich visuals to captivate students. Built to support the inquiry-based approach, it engages students in the active learning process and stimulates thinking through interactive elements such as animations, simulations and games. Science concepts are made relevant to real-life scenarios to pique interest among students to discover ideas and concepts beyond their classrooms. Students are encouraged to become independent learners as they explore the concepts and sharpen their thinking skills through the activities. Science, Right On! also supports various teaching methods which include flipped classroom lessons and e-learning.

#### Lower Secondary Science (Grade 7-9)

#### In partnership with amdon





#### Simulations

Experience the life of a scientist. Discover how to use scientific equipment and conduct experiments.

#### Video demonstrations

Demonstrate concepts using real-life examples to pique students' interest and spark the inquiry process.







#### Animations

Animations with humorous contexts can be used as lesson openers and bring about an engaging yet enjoyable experience in learning science.

#### Games

Explore and apply concepts learnt through fun and interactive games.





### Upper Secondary Science – Physics, Chemistry, Biology (Grade 10-11)

This digital resource is repurposed from the digital elements found in MATTERS series (enhanced ebooks and question bank).





#### **Physics**

#### Chemistry

m

#### Introduction\*

Animations in a daily life context help to highlight the relevance of science and ignite students' interest towards the subject. Inquiry questions are also raised to guide students through the inquiry process.

\*Available for Physics and Chemistry only



Chemistry



#### Test\*

Each test consists of 5 MCQs, which provides opportunity for consolidation of learning and formative assessment. Detailed solutions are presented in the explanations to help students clarify misconceptions. Questions are automatically marked.

\*Available for Physics and Chemistry only

## Lower and Upper Secondary Science Grade 7 - 11

# MC Insightful Science

# MCINSICHTIFULSCIENCE

MC Insightful Science is a supplementary digital resource which will enrich learning for learners studying Lower Secondary Science (Grade 7-9) and Physics, Chemistry and Biology (Grade 10-11). This resource bank consists of a variety of videos suitable for flipped classroom lessons or front teaching. Through the videos, learners can visualise and relate to the concepts through the real-world examples which can enhance their understanding and expand their knowledge. It helps learners develop useful skills such as critical thinking and experimental skills. Interactive elements are also present to support engagement and self-directed learning.

### Discover

Teaching videos are present to explain concepts and they can be used for flipped classroom lessons or post-lesson revision. There are questions which serve as checkpoints in the videos to assess learners' understanding.



### Animation

Animated videos are used to demonstrate concepts and allow learners to visualise them. This can be used to support frontal teaching.



### Story

Interesting stories of scientists are used to pique learners' interest in learning.



#### e-Experiment

Experiment videos are presented in a clear step-by-step manner to help learners make observations and draw conclusions. It provides exposure to common science experiments related to the topics taught.





### Simulation

Interactive simulations are used to illustrate concepts that cannot be observed normally, enhancing learners' understanding of the concepts.





### Virtual Lab

Virtual lab is an engaging and interactive tool used to guide learners to carry out an experiment virtually.

## Upper Secondary Science Grade 10 - 11

# Live! Physics



Live! Physics is a digital resource which enhances understanding of concepts and enriches Physics learning. With more than 150 experiment videos, explanation videos and quizzes across Grade 10 to 11, this resource supports self-directed learning and frontal teaching. Interesting experiment videos that showcase scientific phenomena can be used to pique learners' interest in Physics. There are also clear and easy-to-understand explanation videos which are suitable for post-lesson revisions or flipped classroom lessons. Quizzes will serve as formative assessment for learners as they come with auto-marking feature with explanations provided. Live! Physics will help learners develop useful skills such as critical thinking, problem-solving, analytical thinking, and digital literacy.

#### **Video Discussion**



Experiment videos which demonstrate scientific phenomena will allow learners to visualise concepts in a reallife context and promote deeper understanding. A thinking question appears at the end to prompt learners to brainstorm about the observation made in the video and relate it to scientific concepts.

#### **Explanations**



Concepts are explained and illustrated using animations in the teaching videos. These videos can be used to support frontal teaching, flipped classroom lessons or post lesson revisions.

#### Quiz

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Quizzes come with 5 topic-related questions and include auto-marking feature to provide immediate feedback. Explanations are given to let learners review the questions and clarify any misconceptions.

## Upper Secondary Science Grade 10 - 11

## **IGCSE Physics, Chemistry and Biology Assessment**



IGCSE Physics, Chemistry and Biology Assessment is a digital question bank which serves as a supplementary material for learners following the IGCSE curriculum. It contains a variety of questions, with more than 11,000 questions across the subjects, which ensures ample practices for learners to hone their thinking skills. The questions are packaged into various quizzes, which are then graded into three levels of difficulty to cater to learners of different learning readiness. This will boost learners' confidence as they attempt the questions in the sequence of increasing difficulty. The quizzes provide opportunities to consolidate learning and serve as a form of formative assessment for learners to check their understanding. The questions are automatically marked with full explanations or solutions, which promote self-directed learning and allow clarification of misconceptions among learners. Usage and mastery reports can also be generated for educators and parents to monitor learners' progress and pinpoint gaps in learning.

#### More than 11,000 questions available, with varying levels of difficulty.



Imb)

## Upper Secondary Science Grade 10 - 11

## Marshall Cavendish Education IGCSE<sup>™</sup> Computer Science Suite

Available on: me

Discover theories and concepts

Marshall Cavendish Education IGCSE<sup>™</sup> Computer Science Suite is designed to complement Marshall Cavendish Education IGCSE<sup>™</sup> Computer Science.

This suite aids teachers in using a blended learning approach to teaching. The lessons are interactive, structured to ensure students understand concepts easily, attempt learning activities related to real-life scenarios, and use different technology to achieve learning outcomes that are aligned to IGCSE Computer Science.

#### **Structured learning**



#### For teachers

- ✓ Aligned to MCE's IGCSE™ Computer Science series
- ✓ Enhanced mastery in concepts through self-directed learning
- ✓ Supports blended learning

#### For students

- ✓ Embark on an engaging and fulfilling hands-on learning experience
- ✓ Delve deeper into concepts through real-life applications
- ✓ Equip learners with technological literacy & skills for success in the future workplace

For teachers and learners who follow IGCSE<sup>™</sup> Computer Science series, Grade 10 – 11 is available for consideration. To find out more, contact our education consultants.



Product Type	Title
Skills-based	Lower Secondary Science Assessment
	<ul> <li>Distinction in Science – Correcting Misconceptions</li> </ul>
	Ready for 'O' Level
	<ul> <li>Think Science Normal (Academic)</li> </ul>
	Perfect Guide Science Series
Guide Book	Study Guides:
	Lower Secondary Science Revision Guide
	Perfect Guide Science Notes



### Skills-based

## Lower Secondary Science Assessment (New J



 Lower Secondary Science Express/Normal (Academic) Assessment 1A 9789814926003



Lower Secondary Science Express/Normal (Academic) Assessment 1B

9789814971065

This series is intended to fully support students through the transition from Upper Primary to Lower Secondary. Each chapter begins with language support questions to help students come to grips with the vocabulary needed to score well in tests. Levelled questions for each chapter gradually build exam-confidence on individual topics. Finally, specimen papers with mark schemes based on the Semestral Assessment format allow students to assess their readiness for the exam.

Lower Secondary Science Assessment 2A and 2B will be released by early 2022.

### **Distinction in Science - Correcting Misconceptions**

This series aims to help learners correct their underlying misconceptions through a unique three-step approach: Firstly, a pre-test to diagnose the level of understanding and existing misconception, followed by detailed notes and answers for learners to revise and correct the misconceptions. Finally, a final assessment is provided to consolidate and evaluate learning.



 Distinction in Science -Correcting Misconceptions Lower Secondary Book A 9789814433617



- It contains:
- Concept cartoons for identifying common misconceptions.
  - · Comprehensive notes for enhancing conceptual understanding.
  - Flow charts, tables and concept maps for summarising key points and linking important concepts.
  - Formative and summative assessments for consolidating and evaluating learning.

Distinction in Science -Correcting Misconceptions Lower Secondary Book B 9789814433624

Secondary Science 131

SUPPLEMENTARY MATERIALS

### Ready for 'O' Level

Designed to help learners consolidate their learning, this series highlights and tags all the notes and questions to specific learning objectives in every topic.

It contains:

- Comprehensive revision notes.
- Exercises with Multiple-Choice and Structured Questions for ample practice.
- · Revision checklist.
- · Glossary that guides learners on how to respond to words commonly used in Science questions.
- Answers with explanations to facilitate self-study.



### **Think Science Normal (Academic)**

This series is specially designed to help learners revise science concepts learnt. Notes and explanations followed by practice questions help learners master concepts.

Based on the 2013 Lower Secondary Science Normal (Academic) syllabus by the Ministry of Education, Singapore, the series offers notes and explanations followed by practice questions to ensure learners' mastery of concepts.

It contains:

- · Bite-sized notes to highlight key concepts for quick and targeted revision.
- · Confidence Review to equip learners opportunity to apply what they have learnt.
- *Revision Questions* to consolidate concepts learnt.

- Revision Papers to provide ample practice for examinations.
- · Confidence Booster to provide tips and correct common misconceptions.



 Think Science Normal (Academic) Lower Secondary Book A 9789814443159



Think Science Normal (Academic) Lower Secondary Book B 9789814443906
SUPPLEMENTARY MATERIALS

#### **Perfect Guide Science Series**

The *Perfect Guide Science* series has been designed to strengthen conceptual understanding and challenge learners to think critically.

It contains:

- · Clear and concise notes with common errors highlighted.
- Tables and labelled diagrams to aid understanding.
- · Links to textbooks for easy reference, reading and revision.
- · End-of-chapter worked examples and exercises.
- · Detailed explanations alongside the answers provided to guide learners in answering questions.

The Perfect Guide Science series is available across the various sciences and for the different skill sets, such as:

MCQ & Free Response Questions

- Structured Questions
- MCQ and Free Response Questions
- Data Response Questions

#### Lower Secondary Science

#### Structured Questions



Perfect Guide Lower Secondary Science Structured Questions Book A 9789810118662

Perfect Guide Lower Secondary Science Structured Questions Book B 9789810118679

Perfect Guide Lower Secondary Science MCQ & Free Response Questions Book A 9789810196974

 Perfect Guide
 Lower Secondary Science MCQ & Free Response
 Questions Book B 9789810196981

# Normal (Academic) Science

#### MCQ & Free Response Questions



Perfect Guide Lower Secondary Science Normal (Academic) MCQ and Free Response Questions Book A 9789810169619



Perfect Guide Lower Secondary Science Normal (Academic) MCQ and Free Response Questions Book B 9789810170929



 Perfect Guide Normal (Academic) Level (Science)
 Physics MCQ & Free Response Questions
 9789814426497



Perfect Guide Normal (Academic) Level (Science) Chemistry MCQ & Free Response Questions 9789810175528

SUPPLEMENTARY MATERIALS

#### 'O' Level Science

Containing the same useful features, the 3<sup>rd</sup> edition of the *Perfect Guide* 'O' *Level Science* series now packs in additional practice questions to ensure learners get the extra practice they need. Answers and additional resources are also available online to support self-directed learning and easy reference.



Perfect Guide
 'O' Level Physics
 (3<sup>rd</sup> Edition)
 9789814851725



Perfect Guide 'O' Level Chemistry (3<sup>rd</sup> Edition) 9789814851718



'O' Level Biology
 (3<sup>rd</sup>Edition)
 9789814851701

BIOLOG

**Perfect Guide** 

9789810118655

Structured

Questions

'O' Level Biology



O' Level (Science) Physics (3<sup>rd</sup> Edition) 9789814851749



Perfect Guide
 'O' Level (Science)
 Chemistry
 (3<sup>rd</sup> Edition)
 9789814851732

#### **Structured Questions**



Perfect Guide 'O' Level Physics Structured Questions 9789810118631



Perfect Guide
 'O' Level Chemistry
 Structured Questions
 9789810118648

#### MCQ & Free Response Questions



Perfect Guide
 'O' Level Physics
 MCQ & Free
 Response
 Questions
 9789810196998

Perfect Guide 'O' Level Chemistry MCQ & Free Response Questions 9789810196967



Perfect Guide 'O' Level Biology MCQ & Free Response Questions 9789810197025



**Perfect Guide** 

9789810118693

Chemistry

'O' Level (Science)

Structured Questions

Perfect Guide 'O' Level (Science) Physics MCQ & Free Response Questions 9789810198244



O' Level (Science) Physics Structured Questions 9789810118686



Perfect Guide
 'O' Level (Science)
 Chemistry MCQ
 & Free Response
 Questions
 9789810189693

#### **Data-based Questions**



Perfect Guide
 'O' Level Physics
 Data-based Questions
 9789814443142



Perfect Guide
 'O' Level Chemistry
 Data-based Questions
 9789814443135



#### Guide Book

#### Lower Secondary Science Revision Guide New

This series is intended to fully support students through the transition from Upper Primary to Lower Secondary. The books help students put new information into context by incorporating learning maps and prior knowledge that demonstrate how topics progress through the levels.

Closely integrated with the 2021 Singapore MOE syllabus, and following the same thematic approach, the books also offer revision notes, enrichment material, numerous worked examples and visual summaries to ensure that students approach their exams with confidence.

Lower Secondary Science Revision Guide 2A and 2B will be released by early 2022.



Lower Secondary Science Express/Normal (Academic) Revision Guide 1A 9789814926010



Lower Secondary Science Express/Normal (Academic) Revision Guide 1B 9789814970259

#### **Perfect Guide Science Notes**

*The Perfect Guide Science Notes* series provides learners with study notes to consolidate learning. Clear and concise revision notes which summarise key concepts into tables and diagrammatic representations can help learners to understand key ideas. Notes that point out and correct learners' common misconceptions are also included.

#### 'O' Level Science Notes



Perfect Guide 'O' Level Physics Notes (2<sup>nd</sup> Edition) 9789810195724



Perfect Guide
 'O' Level Chemistry
 Notes
 (2<sup>nd</sup> Edition)
 9789810195717



Perfect Guide 'O' Level Biology Notes (2<sup>nd</sup> Edition) 9789810195731



Perfect Guide
 'O' Level (Science)
 Physics Notes
 (2<sup>nd</sup> Edition)
 9789810195755



Perfect Guide 'O' Level (Science) Chemistry Notes (2<sup>nd</sup> Edition) 9789810195748

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Summer of the second



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# Secondary Humanities



+ Supplementary Materials

138





This series contains topical practice questions covering all topics in Geography Lower Secondary Coursebook One. Exam-style questions prepare students well for tests and examinations with questions on geographical investigation and response to geographical issues. Furthermore, a detailed answer key with annotations is provided to help students understand how answers are derived.

 Geography Practice Secondary 1
 Express/ Normal (Academic) 9789814982283

## Geography Revision Guide New



This series serves as an important revision guide for all Secondary 1 Geography students as it adheres closely to the contents of Geography Lower Secondary Coursebook One. The revision guide contains concise notes with question-specific tips and good practice questions to reinforce student learning while addressing misconceptions students may have.

 Geography Revision Guide Secondary 1
 Express/ Normal (Academic) 9789814941556



# + Marshall Cavendish Education Cambridge IGCSE™

Information and Communications Technology	140
+ Marshall Cavendish Education Cambridge IGCSE	ТМ
Computer Science	141

Grade 10 – 11 Age 15 – 17



## **Product Introduction**

Marshall Cavendish Education Cambridge IGCSE™ Information and Communications **Technology** series is a comprehensive two-year programme designed to support learners with their study of the Cambridge IGCSE and IGCSE (9-1) ICT syllabuses (0417/0983).

The Cambridge IGCSE ICT series incorporates both print and digital learning resources that support blended learning. This provides learners with a comprehensive and flexible learning journey.

The Marshall Cavendish Education Cambridge IGCSE ICT series promotes visual learning and delivers an engaging learning experience. Difficult concepts are scaffolded and broken down to convey bite-sized concepts, with worked examples that support new learners.

To nurture a 21<sup>st</sup> century practical problem solver, this series includes real-life, scenario-based problems and situations for learners to apply scientific and technological concepts learnt to practical aspects beyond the confines of the classroom.

Our package delivers a stimulating and enjoyable learning experience through the use of engaging chapter openers, friendly and concise language, and colourful illustrations and infographics which simplify learning concepts. This enables learners to develop necessary skills to embrace the rapidly changing technological landscape and become future thinkers and problem solvers.



Grade 10 – 11 Age 15 – 17



## **Product Introduction**

Marshall Cavendish Education Cambridge IGCSE<sup>™</sup> Computer Science is a comprehensive two-year programme designed to support learners with their study of the Cambridge IGCSE and IGCSE (9-1) Computer Science syllabuses (0478/0984).

The Cambridge IGCSE Computer Science series incorporates both print and digital learning resources that support blended learning. This provides learners with a comprehensive and flexible learning journey.

It encourages active and inquiry-based learning, which helps learners to develop 21<sup>st</sup> century skills. It is also designed to support learners for whom English is not their first language by using simple and concise language in its content.

Through engaging chapter openers and colourful illustrations and infographics that effectively simplify and convey concepts, the series promotes visual learning and delivers a stimulating learning experience. Overall, this series enables learners to develop necessary skills to embrace the rapidly changing technological landscape and become future problem solvers.



\*These resources have not been through the Cambridge International endorsement process.

# Why choose MCE Cambridge IGCSE<sup>™</sup> ICT and Computer Science?

# **Reduce Learning Obstacles and Achieve Proficiency in Concepts**

With its clear and simple language, the series caters to learners for whom English may not be their first language. The highly-visual and clearly-organised content is also designed to guide learners of various learning readiness to master the syllabus content. In addition, the use of technology helps to enrich and enhance learning.



Find out more here!



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# Build Learners' Confidence by Linking Theory to Real-Life Applications

This series creates opportunities for learners to engage in their learning, as they make the connection between the theory they learn in the classroom and real-world scenarios through the various activities in the book.



MCE Cambridge IGCSE Computer Science Student Book

## Prepare Learners for the Future by Equipping Them with 21<sup>st</sup> Century Competencies

Through the inquiry-based approach, learners are encouraged to continually ask questions and reflect on their understanding. This encourages active learning and promotes self-directed learning.

#### Creative Thinking challenges learners to find out more about concepts covered in the classroom.

**Challenge** students to think of external hardware that could also be found internally in certain devices. Also ask them to think about types of hardware that could be either internal or external. You could have further discussions about the brands on the market, the specifications of the hardware, etc.

#### Activity

Ask students to collaborate in small groups to make posters that display the different types of hardware. For each of the hardware types, they should write a short description of its function and use in everyday life.

Allow each group to present their posters to other students to practise communication. Discuss the advantages and disadvantages of the types of hardware available with the class.



MCE Cambridge IGCSE Computer Science Student Book

144 Technology

# Enhance Teaching and Learning Effectiveness with Digital Resources

Teachers' development is supported through the comprehensive Teacher's Guide to aid in effective lesson planning and delivery in the classroom.

charter 7					-			
Chapter 7	75 D	ata Valid	lation a	nd Verification				
HELPFUL NOTES	When creating	g coding for a new sys	stem, it is importa	nt that a programmer considers all the input of	Lavout and sideb	ar		
include presence, range, length, format, consistency and type.	data that will correct workir does not follo	be coming into the pr ng of the program, an w the rules set by the	rogram. Validation d these checks en checks, the data v	checks on data are therefore essential to the sure inputted data follow the rules. If the data will be rejected by the program.	features within Stud	dent		
	7.5.1 Va	lidation			Book designed to aid	l		
Validation: the process	There are several types of <b>validation check</b> that a programmer can implement into their code where user input is required.				non-specialist teache	ers.		
know the data entered is correct.	Type of validation	Purpose	Example usag	je Coded example				
for validations.	Range check	This checks for data input that falls within a range, and can	A date of birth is required and the program requires	if age in range (0,12): print( "you are not old enough a to continue")				
	Length	apply to numbers, dates and characters. This checks whether	user to be older th age 13. A password or	print("you may continue") pw = input("Type your				
Validation checks sometimes display a message known as a prompt box to let the user know the data entered is not valid.	check	an input is too long or too short.	passcode is requir and must be a particular length.	<pre>ed password:"     if (len(pw)&lt;5 or len(pw)&gt;10):     print("Your password is not     valid")     else:     print("Your password is the     correct length")</pre>		Differentiated Instructions to stretch		
REFLECT Different form fields can have different validation	Type check	This checks whether an input is the correct type of data, such as text or a number. This checks whether	An age is required in numbers and a other type of data rejected.	<pre>i type(object) ny is ouant = input(*Please enter</pre>		learners' abilities further using the Challenge		
checks daved on the type of data entered. Can you suggest a validation check for entering an appropriate password?	check	an input has been made or not, and will not allow a process to continue until something has been entered.	items ordered war required to make a stock system calculate a total.	<pre>s number of required items:*) while len(quant) == 0:     quant = input(*Please enter number =*</pre>		suggestions.		
QUICK CHECK	Format check	This checks to see if data has been entered in the correct format for the input.	A date in DD/ format H	lardware Activity nitiate a conversation by asking students to nitiate a conversation by asking students to	b list as many types of hardware as they can. Ask seen and hardware that cannot be seen. Talk to be a comparishing that are common amongst	Activities to support and stretch learners to		
	Check digit	This checks for the final digit in a code of numbers and is calculated mathematically from all of the other digits in the code.	A numb barcode stored.	them to include both increases and students about the important hardware pai the different brands out there on the mark <b>Support</b> students by asking them to focus of the students which types of hardware they	rts of a sinarchitered et. on a specific device, such as a smartphone. Ask y can identify that are visible and not visible in a y can identify that are visible and not visible in	interest more deeply		
104 Algo	orithm Desig	n and Problem Se	olving	smartphone. Challenge students to think of external ha certain devices. Also ask them to think ab or external. You could have further discus snecifications of the hardware, etc.	ardware that could also be found internally in out types of hardware that could be either internal ssions about the brands on the market, the	teaching suggestions and activities to facilitate classroom discussions.		
MCE Cambridge Computer Scienc	IGCSE ce Stude	ent Book		certain devices. Also Jake's or external. You could have further discuss specifications of the hardware, etc. External storage devices Activity Move on to talk about storage devices, <b>Support</b> students by asking them to thil box is internal and everything outside t them to search on the internet for suit. PC, let them see inside and show them blurred. For example, is a micro-SD cat Activity Ask students to collaborate in small g of hardware. For each of the hardwar function and use in everyday life. Allow each group to present their po Discuss the advantages and disadvar Workbook <b>Exercise 1: questions 1 and 2</b> Ask students to complete questions: All answers to questions in the Wo Workbook <b>Exercise 2</b> Ask students to complete Exercise AO1: Recall, select and communical AO1: Recall, select and communical	which can also be internal or external. nk of a traditional desktop PC. Everything inside the he box is external. Show them photographs or allow able images to illustrate these concepts. If you have a the different components. the line between internal and external hardware is roups to make posters that display the different types roups to make posters that display the different types roups to other students to practise communication. Intages of the types of hardware available with the class. \$1 and 2 of Exercise 1 in the Workbook. Inte knowledge and understanding of ICT. Interventional and understanding of ICT. In the workbook. Icate knowledge and understanding of ICT.	and activities to facilitate classroom discussions.		

Technology

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MCE Cambridge IGCSE ICT Teacher's Guide

# Stay connected with us on social media!



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# Applied Learning Programme

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## **Applied Learning Programme**

As a leading provider of distinctive K-12 educational solutions in Singapore, Marshall Cavendish Education integrates research driven educational approaches with innovative technology to facilitate students' learning.

Our Applied Learning Programme prepares the learners for the future. Each programme strengthens the learner's capabilities and prepare them for the real world. Our programme caters for a range of interests from coding, life science to STEM, digital literacy and art & aesthetics. Each programme encourages creativity, promotes exploration and problem-solving. In addition, our qualified Residential Trainers are trained to develop and conduct customised training to both teachers and students.

The six key areas of our Applied Learning Programme are:

- MCE Coding Lab
- Arts & Aesthetics
- Digital Literacy
- Life Science
- STEM Projects
- Professional Services

### **MCE Coding Lab**

MCE Coding Lab offers game design and development programmes through a project-based approach that build on young learners' 21st century skills such as collaboration, communication, critical thinking and creativity.

MCE Coding Lab's programmes are based on the user-centered philosophy of game design that allows learners to gain different perspectives as they put themselves in someone else's shoes. Our well-designed curriculum is suitable for learners from as young as 6 years old, and progresses them to advanced coding. MCE Coding Lab is available on MCEduHub.

#### **Our Programmes**

- Virtual Robotics
- Python
- AR/VR
- App Development
- 2D/3D Design
- Web Development
- JavaScript

# Benefits of Coding for the Next Generation of Learners



Builds on their soft skills such as collaboration, communication and creativity



Adopts a hand-on approach using technology that allows self-directed learning and personalisation



Encourages creativity and better understanding in analysing the systems



Exposes them to real-life scenarios an uses computational thinking to solve complex problems and make decision



The user-centered philosophy of game design allows learners to gain different perspectives as they put themselves in someone else's shoes





**robotify** is a project-based resource that provides engaging virtual robot coding for students. Take your pick of drones, submarines, space robots and more from over 100 hours of coding and robotics courses!

#### robotify's 6 main value propositions are

- 1. No download required
- 2. Self-paced guided learning content
- 3. No experience required

#### **Our Programmes**

- Robotify Basics
- Axel's Mars Adventure
- SRVO's Drone Delivery Service
- Treasure Hunters
- Treasure Trove
- Drone Park
- GBR Tag-and-Track
- Marine Biology Survey And more!

- 4. For ages 6 to 12
- 5. Cost-effective
- 6. Access to the latest and greatest robotics



### MCE Coding Lab: Koding Next

## Suitable for age 12 – 16 20 lessons per programme Available on



This suite offers short courses in MCEduhub. Each course adds to students' knowledge, expands their coding experience by creating projects, and hones 21<sup>st</sup> century skills. These courses are suitable to use on tablet devices or desktop and blended learning. The application tools recommended in the lesson are mostly free to download.





#### Product Introduction

In this programme, student will learn about basic concepts of programming by using Python programming language. Students will learn basic concepts such as loops, functions, conditional statements and variables. Students will also learn to use the Python library to create a programme with a user interface such as menus or buttons, and to create interactive games with sprites or graphics. By the end of the course, students will be able to understand the basic concepts of programming and create their own programme with or without graphics.



### AR & VR

zapwørks

Suitable for age 12 – 16

#### **Product Introduction**

In this programme, students will learn how to create Augmented Reality Apps, or Virtual Reality Apps, for Android or iPhone using Zapworks. Students will learn basic programming concepts in Javascript language such as variables and conditional statements. By the end of the course, student will be able to create Augmented Reality with marker or markerless Application, or Virtual Reality Application using VR box and without VR box.



#### **Product Introduction**

In this programme, students will learn how to create apps for android phones using the MIT App Inventor tool. Students will learn programming concepts such as event driven programming, conditional statements and variables. By the end of this course, students will be able to create applications such as calculators, translators, alarm clocks, and mobile games such as pong, quizzes, and many more.

151 Applied Learning Programme



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#### **Product Introduction**

In this programme, students will learn about the concept of design and how to create one using tools such as Photoshop (2D design) or Tinkercad (3D design). Students will also learn how to create a design using programming concepts such as triggers, loops, and variables. By the end of this course, student will be able to create 2D designs such as picture collages, pictures with visual effects and simple animations, as well as to create 3D designs such as room and vehicle designs, using both graphic editing and programming tools.



#### Website Development

Suitable for age 12 – 16

#### **Product Introduction**

In this programme, students will learn about websites, how to create one using HTML and design one using CSS and Bootstrap. Students will learn to create a simple back-end for a website using PHP and MySQL Database. Students will also learn basic programming concepts such as variables, functions, and conditional statements. By the end of this course, student will be able to make a simple website with a clean design and to create a simple website with log-in and database storage functionality.



#### **Product Introduction**

In this programme, students will learn about basic programming concepts using JavaScript language and create an interactivity in a website. Students will learn basic concepts such as loops, functions, conditional statements and variables. By the end of the course, students will be able to understand the basic concepts of programming and can add an interaction to their website.

Find out more about MCE Coding Lab programmes here.

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#### **Arts & Aesthetics**



Arts & Aesthetics is an important form of human expression and is essential in the holistic development of all learners. Our programme aims to promote creativity and critical thinking, develop students' awareness, skills and understanding through different platforms such as Photography, Videography, Animation, Stop-Motion and Digital Art. The wide array of exposure will allow learners to nurture their passion and develop an appreciation for different forms of art.

#### **Our Programmes**

- Photography
- Videography
- Animation (2D, 3D)
- StopMotion
- Digital Art

#### **Digital Literacy**



In an ever changing society, digital literacy is fast becoming an integral skillset for the 21<sup>st</sup> Century learner. Through our programmes, learners are equipped with the necessary Information and communications technology skills and tools such as Microsoft Office and Google tools, as well as an awareness of appropriate usage of the Internet through cyber wellness. This will empower learners to think critically and become more confident in using digital tools and content in their learning.

Microsoft in Education Global Training Partner We are an authorised Microsoft Training Partner and specialise in recognised Microsoft certifications. We provide support to educators to effectively integrate technology in their teaching and students' learning to drive positive student learning outcomes.

#### **Our Programmes**

- Microsoft Office Specialist: Word Associate
- Microsoft Office Specialist: Excel Associate
- Microsoft Office Specialist: PowerPoint Associate
- Microsoft for Teaching, Learning, Collaborarion, Productivity tool such as Teams, OneDrive, SharePoint, Class Notebook, MakeCode, Microsoft 365, 21st Learning and Design, etc
- · Singapore MOE Baseline Standard (Microsoft 365, Google Suites, etc)
- Cyber wellness
- Cyber security
- Google Suites
- Google Analytics

### Life Science



Life science is an important area of study which leads to important insights into medical discoveries, improving human health. Through our integrated STEM and Biotechnology integrated programmes, we hope to inculcate in our learners a sense of curiosity about the world around them and help develop important competencies to prepare them for the challenges of the future world.

#### **Our Programme**

Bigeye Scientist



Bigeye Scientist is available as a training programme or as a digital resource on MCEduhub.

Bigeye Scientist is a suite of engaging experiments which integrates biotechnology exploration into STEM learning. It consists of step-by-step experiments which are easy to conduct, making it suitable for learners between the ages of 13 to 14. Worksheets and videos are also included to check learners' understanding and enrich their learning experience. This resource provides opportunities to reinforce and extend learning as learners can relate concepts from everyday learning in school to the real world. Bigeye Scientist is designed for an active learning experience that promotes scientific literacy, inquisitiveness and self-directed learning. It also hones knowledge, skills and attitudes to help develop important competencies (OECD Education 2030) to prepare learners for the challenges of the future world.



Experiment infographic

Experiment video

A total of 22 experiments encourage learners to delve deeper into concepts and nurture them into future scientists.

#### Suitable for Lower Secondary

- Bye Bye Plastic
- Make Biofuel
- Mystery Matter
- Robotic Hand
- Solar Oven
- Clean Up Oily Mess
- Acid Rain and Soil
- Interaction of Forces
- DIY Catapult
- Biosphere
- Polar Bear Mystery

- Matter Change
- Cycle of Matter Change
- Plant on Mars
- Osmosis
- Recycle Paper
- Exercise and CO<sub>2</sub>
- Our Heart
- Brain Injury
- Gas Exchange in Lungs
- Our Lungs
- Analyse Leaves

156 Applied Learning Programme

#### **STEM Projects**



Marshall Cavendish Education works closely with Science Centre Singapore to develop high quality and up-to-date solutions with authentic tasks for secondary STEM curriculums. The STEM Thematic Project places emphasis on the application of Science, Information and Communication Technology, Engineering and Mathematical knowledge. Through these projects, students cultivate essential 21<sup>st</sup> century competencies and learn to appreciate the impact of science in everyday life.

STEM Thematic Project provides a bank of resources and support for teachers to use. The secondary resources are based on the demands of the Singapore curriculum for secondary one to three (age 12 to 14) and the kits can be used in Key stage 4 (secondary) depending on the student's individual needs.

#### **Our Programmes**

As part of their STEM education, students learn fundamentals concepts that are reinforce and built-upon by applying this knowledge to create projects such as:

- Roman Catapult\*
- Traffic Light Control System\*
- Electric Elevator\*
- Smart Racing Car\*
- Robotics Arm\*
- Intelligent Table Lamp\*
- Strawbees Light Sensing Plant
- Strawbees Mechanical Crane
- Smart Home

\*Smart blocks compatible

#### **Professional Services**

Marshall Cavendish Education has deployed Residential Trainers to over 100 primary and secondary schools in Singapore since 2006. Over the past 13 years, Marshall Cavendish Education Residential Trainers has supported schools in building an active culture deploying e-learning and effective use of ICT. Working with Heads of Departments and Subject Heads, our Marshall Cavendish Education Residential Trainers are qualified to conceptualise and design customised ICT courses set by the Ministry of Education in Singapore. All our Residential Trainers possess Diplomas in Multimedia/IT/Computer Studies, and are experienced in classroom management, and the Google and Microsoft platforms.

The trainer from Marshall Cavendish Education is helpful in running ICTbased student training programmes. Having an ICT trainer provides a wider opportunity for students to acquire ICT skills which will enhance their learning in the classrooms.

— Testimonial Provided by a Primary School Head of Department

Very professional. Marshall Cavendish Education's Professional Services are definitely not a fly by night service provider.

— Testimonial Provided by a Primary School Head of Department

**Key Services** 

#### Residential Trainer

Our trainer adds designs and conducts customised IT-based, STEM training workshop to students and teachers. They advise and support our teachers in using ICT for teaching and learning, and perform any task assigned by HOD IT.

ICT Executive

Provides technical advice and sourcing and purchase of computer hardware, software and accessories. Our staff is capable of planning, evaluating, and implementing IT-related projects. They assist schools with IT inventory stocks, condemnation of equipment & liaising with vendors for purchase, repairs and more.

Infocomm Trainer

Conducts STEM, Applied Learning Programme, and customised training programmes for teachers and students. They mentor, prepare, and train students to take part in any ICT or multimedia related competitions.

#### **Curriculum Design, Consultation and Training Services**

STEM Thematic Project advisory committee was set up in early 2016, and it comprises leading academic professors and practitioners in Science, Mathematics and Technology education. The committee plays an active role in steering the development of our STEM Thematic Project curriculum and professional development programmes. They also form the basis of our consultancy work, which includes the promotion, planning, and implementation of strategies, to achieve an integrated and effective STEM education.

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# Professional Development

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# MCI LEADERSHIP PROGRAMMES FOR EDUCATORS

The post-COVID world presents new challenges to education leaders. While institutions adapt to new education technology, they are also seeking to adopt cost-effective solutions to benchmark and improve school performance.

To help leaders and decision-makers adapt and thrive in a hybrid learning environment, Marshall Cavendish Institution (MCI) offers a selection of programmes for education leaders to progress and remain relevant.

## Sustainable Educational Leadership Programmes – **Balanced Scorecard for Schools**

MCI provides core modules that blend research and best practices into a comprehensive, context-driven experience. This survey-based school evaluation and improvement programme is designed to rapidly improve leadership performance in managing an effective and sustainable school environment through research-based and customised solutions and assessment tools.

This data-driven approach provides a clear direction for school performance improvement, reveals immediate blind spots, and allows schools to visualise how closely they are aligned to international best practices.



I. How to Plan for and Achieve an Effective and Sustainable School Environment

II. Exploring of context through Different Perspectives **II. Exploring of School Leadership** 



III. The Practice and Art of Teaching and the Nature of Student Learning



IV. Equity and Equality in Schools – the Importance and Interconnectedness of **Student Performance and Well-Being** 



**IDIDI** V. Understanding Technology and Its Impacts in a School Environment



For more information on the courses: http://tiny.cc/mcibsfs

## **Equipping Leaders in Education: The Marshall Cavendish Institute Leadership Academy**

Our Leadership Academy equips leaders-in-education to meet new challenges and overcome them in a Volatile, Uncertain, Complex, and Ambiguous (VUCA) environment.

The programme is focused on: -



Deepening an understanding of key professional issues





Leadership issues





For more information on our Leadership Academy, click here: http://tiny.cc/mcileadership

Our programmes are highly customisable:



Tailored to specific contexts, budgets, and timelines.



Each core module can be taken as a piecemeal experience or a bespoke programme in a span of 180 hours within 24





## A Certificate of Achievement in

Leadership will be awarded to candidates who have fulfilled the required number of hours of coursework and assessment.



To find out how we can meet your needs, register with us and our education consultants will contact you soon! http://tiny.cc/mcimasterclassreg

Success Story: Partnership with the Ministry of Education, Brunei



Marshall Cavendish Institute (MCI) conducted an efficacy study to design a programme for teachers in Brunei. The level of mathematical pedagogical knowledge and proficiency of teachers were measured pre- and post-programme, with striking results.

After attending MCI's Professional Development Programme, -



of the teachers were able to achieve at least a **70% score** 



Lower-performing learners improved their scores by 15%.

MCI accurately **identified gaps to create a targeted intervention** that generated results. Today, MCI continues to serve educators in Brunei.

#### Whether you're looking to:

Benchmark your schools' performance

Adopt leading international best practices

Identify effective solutions in improving school leadership and administration performance

Get started by contacting our education consultants: http://tiny.cc/contactmc to arrange a free consultation.

**Our Esteemed Partners** 





# MCI SPECIALIST PROGRAMMES FOR EDUCATORS

The global pandemic has greatly disrupted the education industry. There has been a surge in alternative education credentials, the normalisation of virtual experiences and cloud platforms, hybrid classrooms and online productisation of education, as well as the emergence of COVID-19 ready campuses worldwide.

Educators and institutions must innovate to lead and sustain. MCI's professional development programmes offers cutting edge training content and pedagogical strategies for educators to advance their skillsets.



## Marshall Cavendish Lesson Study Academy

To improve the professional capacity of educators, current and aspiring principals and heads of departments can implement our proprietary Lesson Study Framework across different subjects to innovate and align with the digital transformation in education.

Our programmes are:

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**Conducted by fully qualified facilitators** from the Ministry of Education (Singapore).



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Part of a concerted international effort to raise the professional capacity of educators in the region.



Find out more: http://tiny.cc/mcilesson



## **Marshall Cavendish Subject-Based Academies**

At the core of Marshall Cavendish Institute lies subject-based academies that have been developed with cutting edge training content and pedagogical strategies. Catering to educators from preschool to high school specialisations, go to our different academies below to learn more.





# Enhance Your Teaching Capabilities with Microsoft Tools

Staying competitive is key, especially in the current global landscape, which is why we offer two courses to advance educators' technical skills, support their teaching strategies, and guide them through training till certification.

#### Certified educators can:



Expect to increase their overall work productivity and efficiency.

$\square$

Maintain the effectiveness of education while meeting the demands of the workplace.



Get a confidence boost from scoring a higher earning potential.



Explore how to achieve this here: http://tiny.cc/MCEMicrosoft Our programmes are highly customisable:



Tailored to specific contexts, budgets, and timelines.



Span **120 to 180** hours within 24 months.

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Each core module can be taken as a piecemeal experience or a bespoke programme.

A Certificate of Teaching or Certificate of Education for Specialists will be awarded to candidates who have fulfilled the required number of hours of coursework and assessment.



In 2014, all public schools in Chile received Mi Matematica, a primary Maths textbook series, from Marshall Cavendish Institute (MCI).

To ensure this resource was fully utilised by the schools:



MCI deployed bilingual trainers who continually guided and partnered with Chilean educators.

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Professional development programmes were tailored to the needs of Chilean educators operating in different environments and with different student abilities.



Get started by registering with us via http://tiny.cc/mcimasterclassreg to arrange for a free consultation or check out our programme brochures.

# **MCI MasterClasses**

Marshall Cavendish Institute (MCI) MasterClasses offer educators the best teaching practices and strategies. Each MasterClass, conducted in the form of a webinar, is facilitated by expert trainers from all over the world. With topics like **enhancing software productivity, understanding 21**<sup>st</sup> **century pedagogical concepts, and even trendy courses like Python Coding**, there's bound to be a MasterClass for everyone.

108 MCI MasterClasses are:



# MCEduHub FOR EDUCATOR DEVELOPMENT

With Marshall Cavendish Education's (MCE) commitment to empowering educators with relevant skills required for the future world, MCE has partnered with Nanyang Technological University (NTU) in Singapore to improve the professional development of educators globally.

The platform is an online community:



**Constituted by leading educators worldwide** that engage in the sharing of strategies and best practices.



Filled with **bite-sized courses designed** to build up specific skillsets for the **modern-day educator**.

The enhanced user interface and compatibility with the latest HTML5 technologies of this portal means effective and engaging learning anytime, anywhere. And this translates to competitive educators who can keep pace with an ever-changing environment.

These online short courses are hosted on MCEduHub, a one-stop and multi-functional content repository developed by MCE.



#### **Our Esteemed Partners**




## Stay connected with us on social media!



@mceducation @mc名创教育

## **Our International Presence**

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