

How to Support Your Child in Learning Science

Sharing by Mdm Evelyn Teo, Mdm Yeo Hwee Hwee & Ms Deanna Chua

2 April 2022 (Saturday)

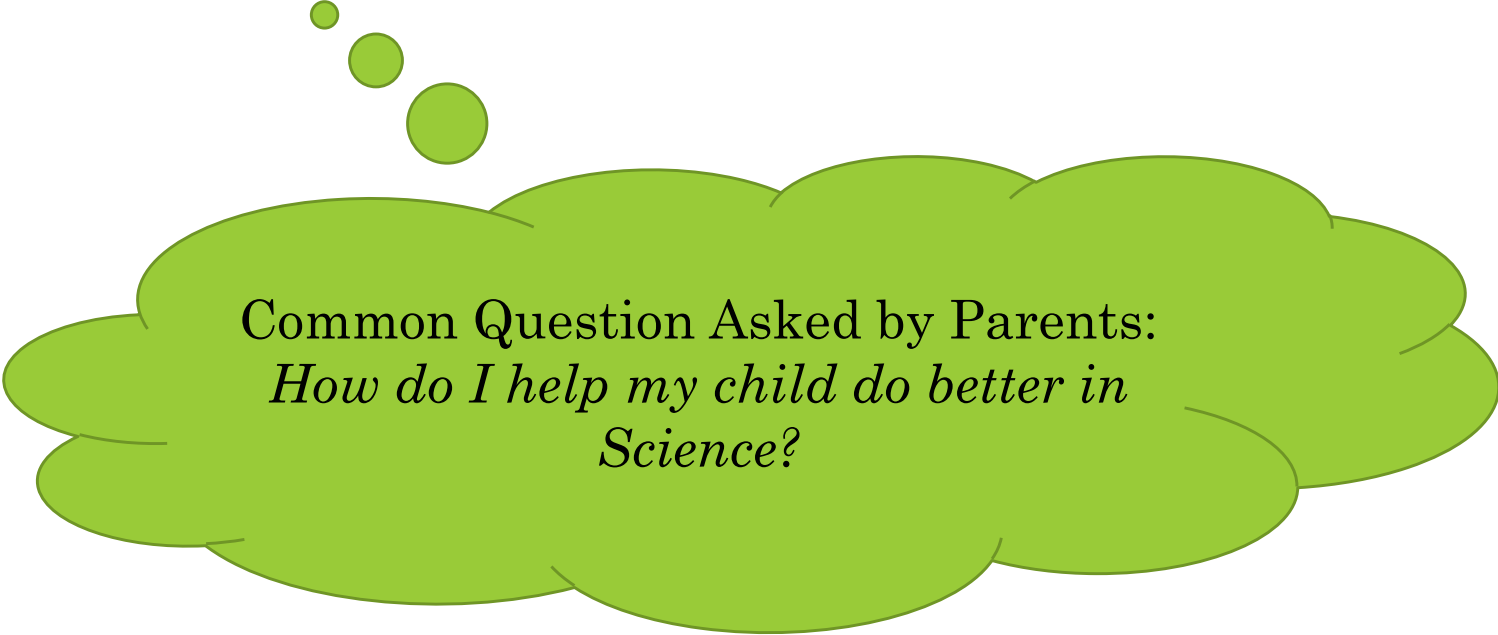
Objectives for today's sharing

Parents will :

- understand the use of school learning resources to support Science learning.
- learn about the classroom strategies that our teachers employ to better support their child in answering multiple-choice and open-ended questions.
- gain practical tips on how they can stimulate their child's interest in Science as well as tips on how to support their child in learning Science.

Intent of this sharing

- To partner parents to help our students do better in Science.



Common Question Asked by Parents:
*How do I help my child do better in
Science?*

Outline

- **Understanding the use of FGPS Science resources** to support Science learning
 - Questions about Science learning for parents include:
 - What does my child learn in Science?
 - How does my child learn in Science?
 - How is my child assessed in Science?
- **Tips & strategies** for answering **multiple-choice** and **open-ended** questions
- **Tips for parents** to stimulate your child's interest in Science and how to support your child in learning Science.
- **Q&A segment**

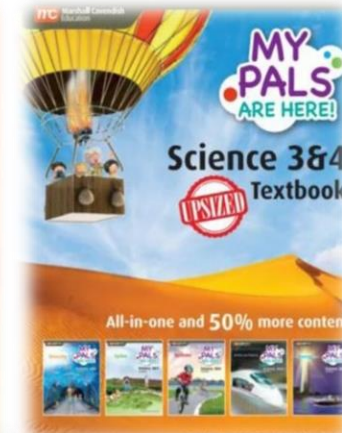
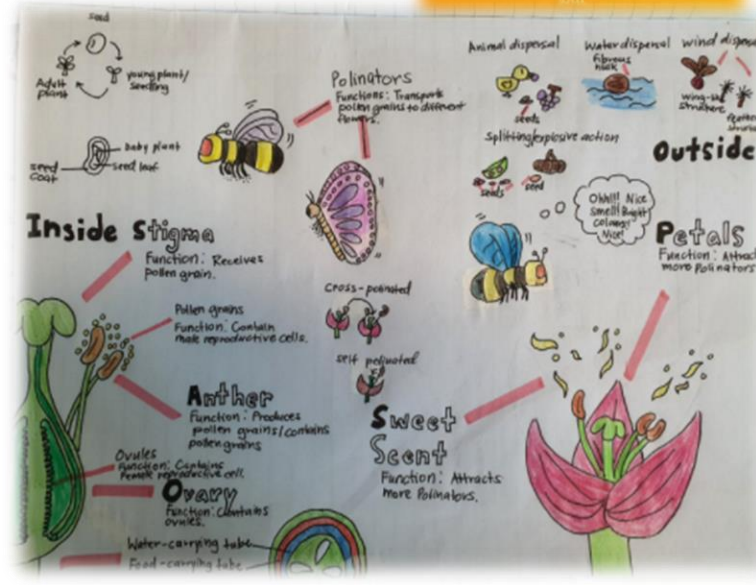
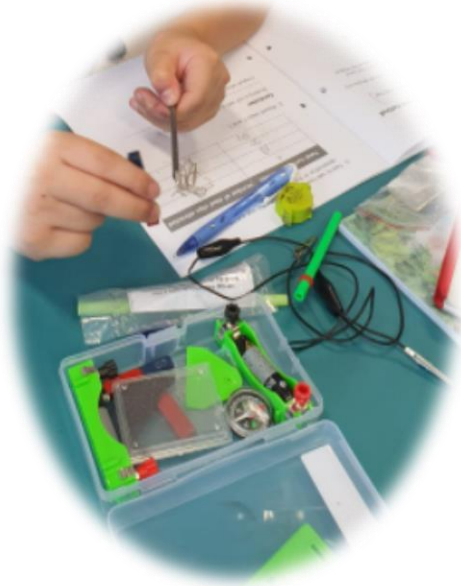
Understanding the use of FGPS Science resources to support Science learning

Questions about Science learning for parents include:

- *What does my child learn in Science?*
- *How does my child learn in Science?*
- *How is my child assessed in Science?*

FGPS Science resources to support learning

- Textbooks & Workbooks
- Topical Worksheets
- Science Journal
- Personal Science Kits (for selected topics)



What does my child learn in Science?

Themes	Lower Block (P3-P4)	Upper Block (P5-P6)
Diversity	<ul style="list-style-type: none">• Diversity of living and non-living things• Diversity of materials	
Cycles	<ul style="list-style-type: none">• Life cycles of plants and animals• Cycles in matter	<ul style="list-style-type: none">• Reproduction of plants and animals• Cycles in water
Systems	<ul style="list-style-type: none">• Plant System (Plant parts and functions)• Human System (Digestive system)	<ul style="list-style-type: none">• Plant Transport System• Human Respiratory and Circulatory Systems• Cell System• Electrical System
Interactions	<ul style="list-style-type: none">• Interaction of forces (Magnets)	<ul style="list-style-type: none">• Interaction of forces• Interaction within the environment
Energy	<ul style="list-style-type: none">• Energy Forms and Uses (Light and Heat)	<ul style="list-style-type: none">• Energy Forms and Uses (Photosynthesis)• Energy Conversion

Notes: Parents are advised to **keep all the Science materials until P6 for revision purpose. Overview of Scheme of Work (SOW) 2022 was communicated in T1W4 Parents Notification.**

What does my child learn in Science?

The skill sets identified in the bullet points here are introduced in a developmental manner and aligned to that of Lower Secondary Science.

	Engaging with an event, phenomenon or problem through:	Collecting and presenting evidence through:	Reasoning, Making meaning of information and evidence through:
Skills	<ul style="list-style-type: none">• Formulating hypothesis• Generating possibilities• Predicting	<ul style="list-style-type: none">• Observing• Using apparatus and equipment	<ul style="list-style-type: none">• Comparing• Classifying• Inferring• Analysing• Evaluating
	Communicating		
Processes	Creative problem-solving, Investigation and Decision-making		

What does my child learn in Science?

During **lessons and hands-on**, teachers provide opportunities for students to use concepts and integrate process skills (e.g. observation & inferential) and processes and carrying out investigation for science inquiry.



How does my child learn in Science?

- In FGPS, textbooks and workbook are used for :

Introduction to concepts

Unlike poles attract and like poles repel

Two magnets can attract or repel each other. It depends on which of their poles are facing each other.



▲ How can we make two magnets attract or repel each other?

Unlike poles of magnets attract. The North pole of a magnet will attract the South pole of another magnet.



Like poles of magnets repel. The North pole of a magnet will repel the North pole of another magnet. Similarly, the South pole of a magnet will repel the South pole of another magnet.



Exploring through hands-on activities

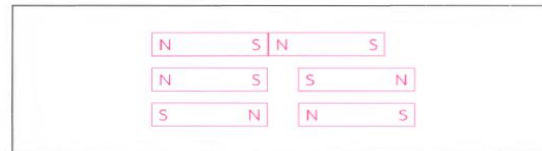
Procedure

A. Poles of a bar magnet

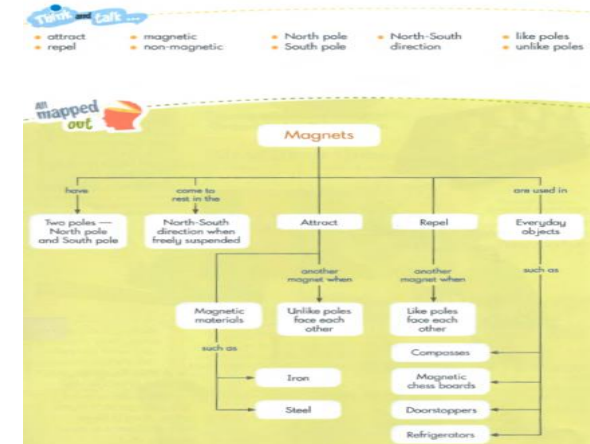
1. Draw a bar magnet and label its North and South poles in the space provided below.



2. Place two bar magnets end to end. What do you notice about the magnets when the ends of the magnets are placed near each other? Draw your observations below.

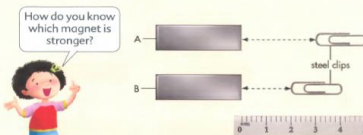


Making links between concepts



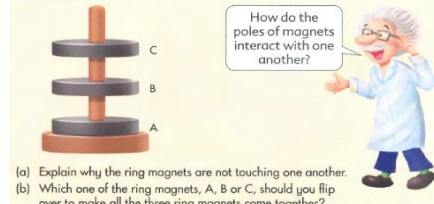
Applying concepts in various contexts

2. Sue magnetised two identical steel bars, A and B, using the stroke method. She observed that bar A attracted a steel clip from a distance of 3 cm, while bar B attracted a steel clip from a distance of 2 cm.



Which bar was stroked more times? Explain why.

Three ring magnets stayed apart when they were placed on top of one another.



- (a) Explain why the ring magnets are not touching one another.
- (b) Which one of the ring magnets, A, B or C, should you flip over to make all the three ring magnets come together?

1. The diagram below shows four bar magnets that are attracted to one another.



Which of the following represents the poles at X, Y and Z correctly?

	X	Y	Z
(1)	North	North	North
(2)	North	South	South
(3)	South	South	North
(4)	South	South	South

Tip for parents :
Ensure that your child maintains good attendance in school to maximise your child's learning.

*Tip for parents :
Knowing what is in
the syllabus ensure
your child studies
the relevant
concepts.*

How is my child assessed in Science?

Science

Syllabus

Primary

Implementation starting with
2014 Primary Three Cohort

Learning Outcomes

Knowledge, Understanding and Application	Skills and Processes	Ethics and Attitudes
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Diversity of Living and Non-Living Things (P3 and P4)

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> *Describe the characteristics of living things. <ul style="list-style-type: none"> - need water, food and air to survive - grow, respond and reproduce *Recognise some broad groups of living things. <ul style="list-style-type: none"> - plants (flowering, non-flowering) - animals (amphibians, birds, fish, insects, mammals, reptiles) - fungi (mould, mushroom, yeast) - bacteria | <ul style="list-style-type: none"> *<u>Observe</u> a variety of living and non-living things and <u>infer</u> differences between them. *<u>Classify</u> living things into broad groups (in plants and animals) based on similarities and differences of common observable characteristics. | <ul style="list-style-type: none"> *Show <u>curiosity</u> in exploring the surrounding living and non-living things by asking questions. *Value individual effort and team work by respecting different perspectives. |
|---|--|---|

Note:

- Recall of names of specific living things (e.g. guppy) and their characteristics (e.g. give birth to young alive) is not required.

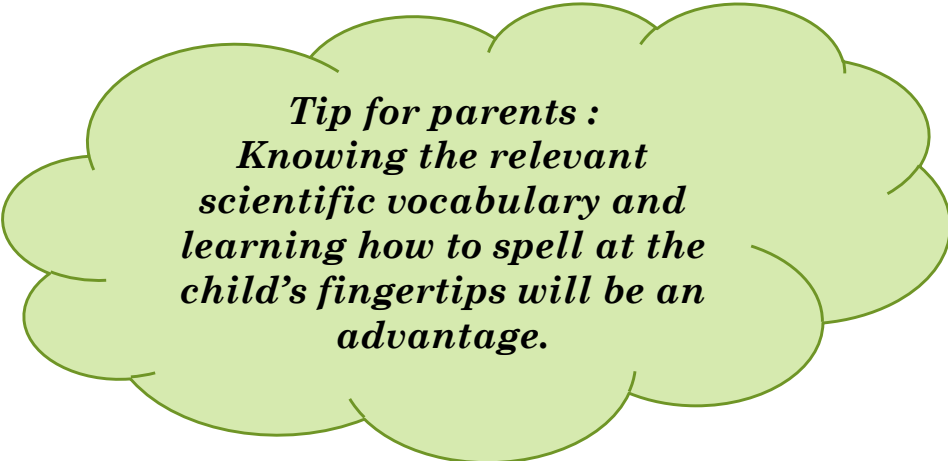


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How is my child assessed in Science?

- Students are assessed based on their ability to apply their conceptual understanding and application of concepts and skills.
- Marks will be awarded when:
 - ✓ students can explain their understanding of concepts in their own words.
 - ✓ concepts which are correct applied in the context of the questions.

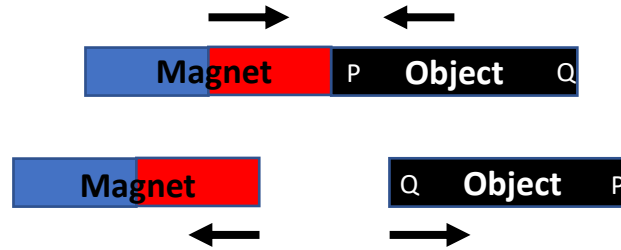


*Tip for parents :
Knowing the relevant
scientific vocabulary and
learning how to spell at the
child's fingertips will be an
advantage.*

Example 1: Magnets

Concept:
Magnetic Repulsion

The object is definitely a magnet. Do you agree?



Yes, they attract each other.



Yes, they repel each other.



Yes, the magnet and object move away from each other.



If the object is only attracted by a magnet, it may just be a magnetic material. There is insufficient evidence to conclude that the object is a magnet. The object is definitely a magnet only if it repels a magnet.

Example 2: Water Cycle

Concept:
Evaporation

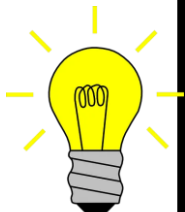
There are water droplets on the leaves in the morning.
They are not there after a while. Why?



Water has disappeared!



Water has evaporated.



Water didn't disappear. It evaporated.
Conceptually, it continues to exist, except in a different state.
'Water has disappeared' does not explain what happened to the water.
Evaporation happens when water changes from liquid to gas.

Tips & strategies for answering multiple-choice and open-ended questions

(P3&4) : Facilitated by Mdm Yeo Hwee Hwee

(P5) : Facilitated by Ms Deanna Chua

Refer to pdf attachments

- 2022 P3 & 4 Questions for Parents Post WS (upload)
- 2022 P5 Questions for Parents Post WS (upload)

Tips for parents to stimulate your child's interest in Science and how to support your child in learning Science.



Tips for parents to stimulate your child's interest in Science

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Tips for parents to stimulate your child's interest in Science

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Yes, toddlers can pick up science concepts

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How do you make kids love Science? You don't

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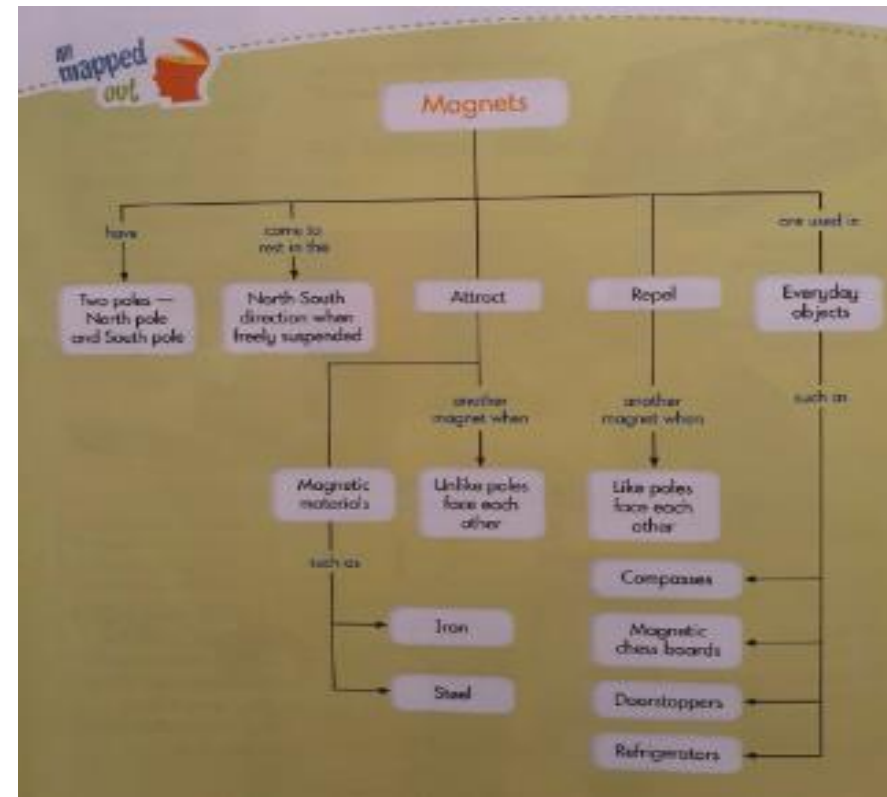
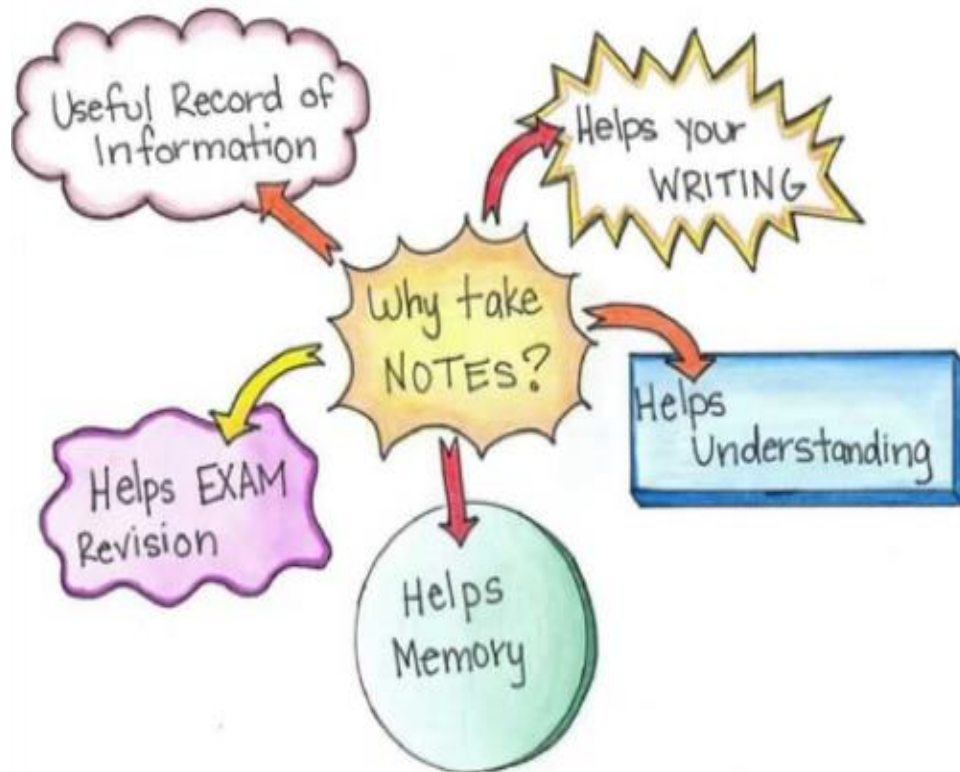


Archana (right) demonstrating a science concept by keeping a ball aloft with a hairdryer.

Tip for parents :
With heightened interest, your child will have an inquisitive mind for Science learning which will in-turn broaden his/her understanding of scientific concepts and skills.

Tips for parents to support your child in learning Science

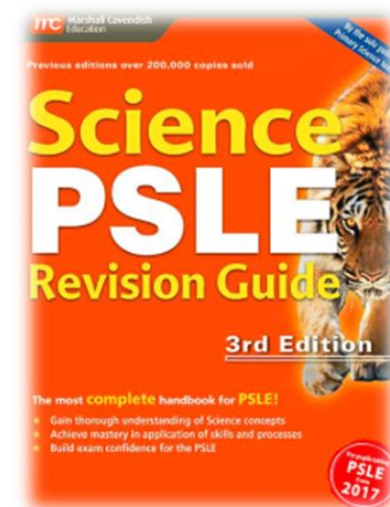
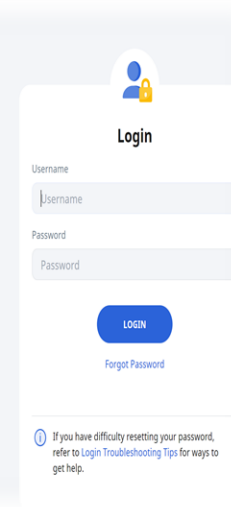
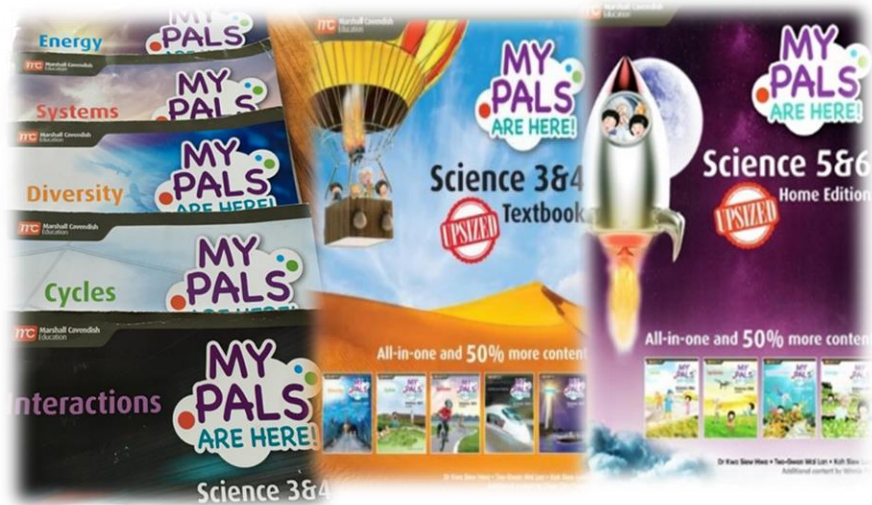
Help your child revise and retain his/her science concepts -
Document learning through drawing mindmaps, taking notes or drawing pictorial representations with labels.



Tips for parents to support your child in learning Science

Resources you can make use to guide your child.

- Science Textbooks
- SLS
- PSLE Revision Guide (*optional item on booklist*)



Tips for parents to support your child in learning Science

Other forms of support you can provide.

- Monitor your child's homework and corrections.
- Support and monitor your child's online learning (with supervision, if necessary) e.g. SLS assignments, online research.
- Make use of the strategies shared if you can guide.
- Use probing questions to guide your child.

Tips for parents :

Questions you can ask your child to guide him/her include:

- *Did you read carefully and highlight key information? Do you understand what the question is asking?*
- *Do you understand the tables / diagrams / graph? Did you annotate?*
- *What are the clues for you to link to the concept learnt? (Encourage your child to attempt every question and not leave blank.)*
- *Can you eliminate the incorrect answers?*

thank
you