2026 PARENTS' BRIEFING
Primary 4

CURRICULUM AND ASSESSMENT
SCIENCE

Content

A. Themes and Topics

B. Assessment

C. Strategies to Support our Pupils

A. Revised Science Curriculum

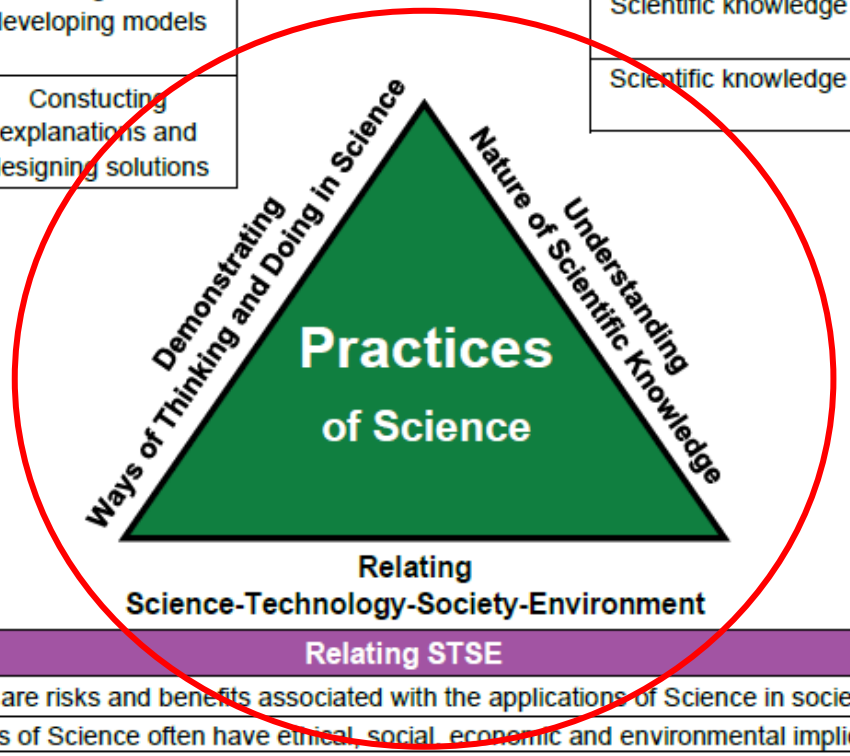
Science education in Singapore provides students with a strong foundation in Science for life, learning, citizenry, and work.

Science for Life and Society in the centre circle captures the essence of the goals of Science education.

Figure 1: The Science Curriculum Framework

Demonstrating WOTD		
Investigating ⇄	**Evaluating and Reasoning** ⇄	**Developing and Evaluating Solutions**
Posing questions and defining problems	Communicating, evaluating and defending ideas with evidence	Using and developing models
Designing investigations	Making informed decisions and taking responsible actions	Constructing explanations and designing solutions
Conducting experiments and testing solutions		
Analysing and interpreting data		

Understanding NOS
Science is an evidence-based, model-building enterprise to understand the real world.
Science assumes natural causes, order and consistency in natural systems.
Scientific knowledge is generated through established procedures and critical debate.
Scientific knowledge is reliable, durable, open to change in light of new evidence.



Relating STSE
There are risks and benefits associated with the applications of Science in society.
Applications of Science often have ethical, social, economic and environmental implications.
Application of new scientific discoveries often drive technological advancement while advances in technology enable scientists to make new or deeper inquiry.

Figure 2: The Practices of Science

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Focus of Theme

Thematic Approach (scientific ideas)

Systems

- A system is made of different parts. Each part has its own unique function.
- Different parts of a system influence and work together to perform function(s).

Cycles

- There are repeated patterns of change around us
- Observing cycles helps us to make predictions and understand things around us

Energy

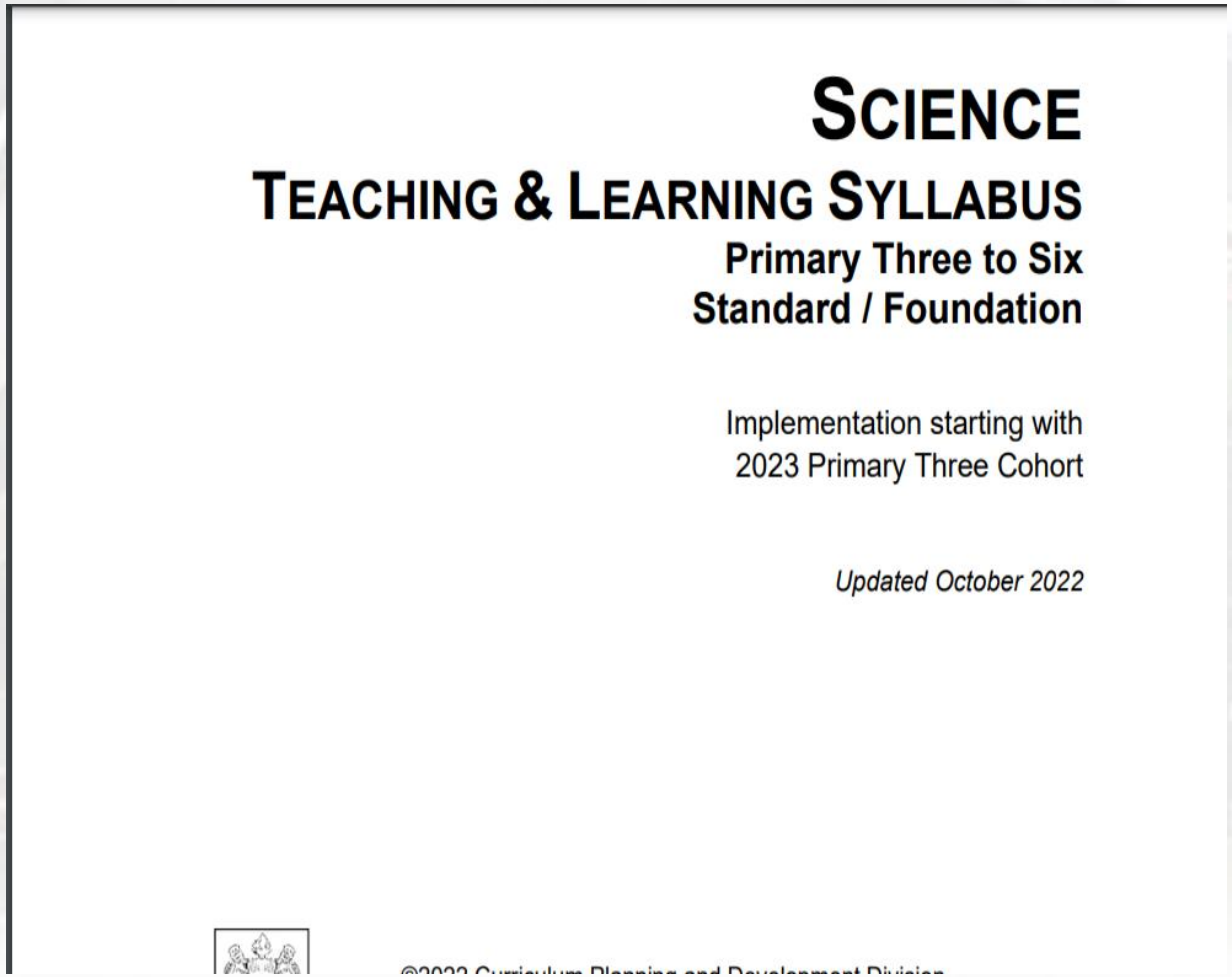
- Energy is required to enable things to work or move.

Syllabus Organisation

Levels	P3	P4	P5	P6
Themes	Diversity . Cycles . Systems . Interactions . Energy			
Topics	• Diversity of living and non-living things • Classification of Living Things • Diversity of materials • Life Cycle of Plants and Animals • Interactions – Properties of Magnets, Making and Using Magnets	• Plant System (Plant parts and functions) • Human System (Digestive system) • Cycles - Matter • Energy – Light and Shadows • Energy – Heat and Effects of Heat	• Cycles – Reproduction in Animals and Plants • Cycles in Water • Plant Transport System • The Human Respiratory and Circulatory systems • Electrical Systems • Simple Series and Parallel Electric Circuits	• Energy forms and uses (Photosynthesis) • Energy conversion • Interaction of Forces (Frictional force, gravitational force, elastic spring force • Interactions within the environment

2023 Revised Science (Primary) Syllabus

For more details, visit the link : *https://www.moe.gov.sg/-/media/files/primary/syllabus/2023-primary-science.ashx*


SCIENCE

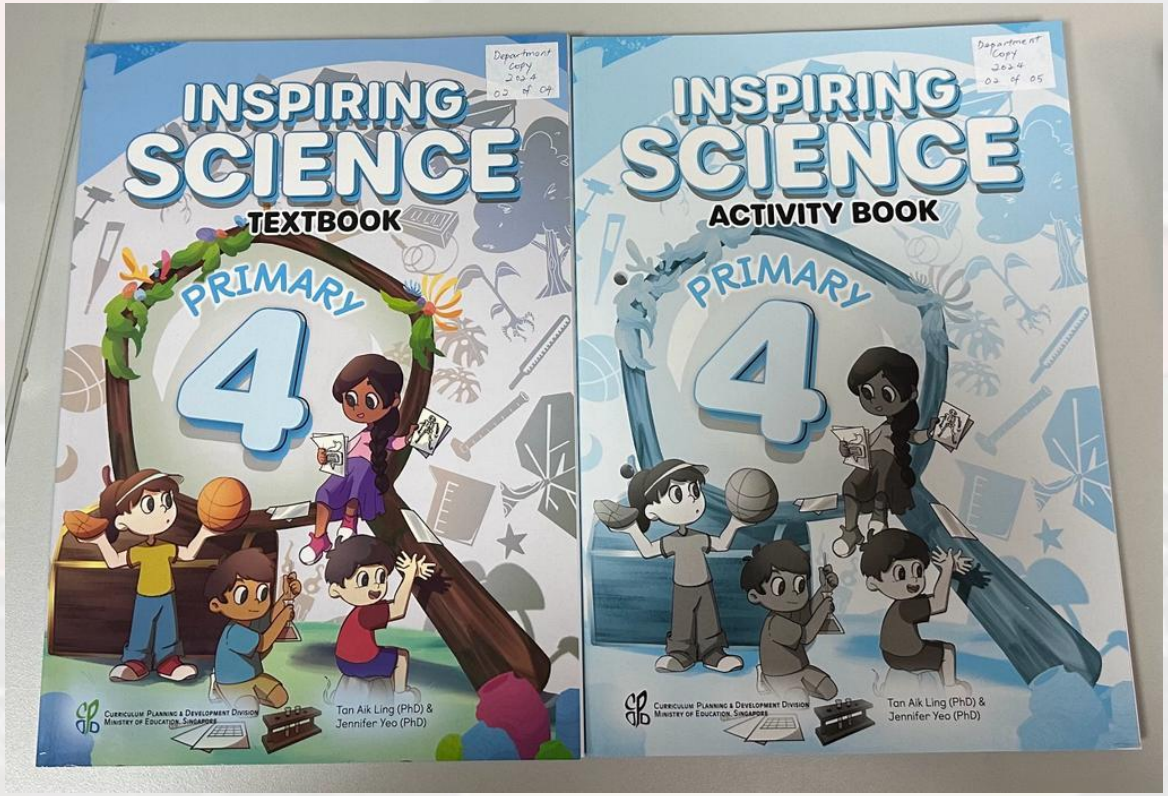
TEACHING & LEARNING SYLLABUS

Primary Three to Six
Standard / Foundation

Implementation starting with
2023 Primary Three Cohort

Updated October 2022

Learning Materials



Textbook and Activity Book

Textbook & Activity Book
Science Journal
Science-Know-It-All (SKIA)
Topical Worksheets
WOTD Worksheets

Please Note:

To keep all the Science materials until child sits for PSLE

Science Assessment

Modes of Assessment (Primary 4)

Other Forms of Formative Assessment	Weighted Assessment	End of Year Examination
• Quizzes • Worksheets • SLS activities • Leverages on ICT platforms	• WA1 (Performance Task) • WA2 (Pen & Paper)	• Booklet A - MCQ • Booklet B - Structured
Assess mastery of learning *To identify learning gaps*	*Assess understanding of core concepts* *Application of skills*	*Assess understanding of core concepts* *Application of skills*

Assessment

Purpose?

- Understanding of core concepts
- Readiness of child
- Close learning gap

How?

Weighted Assessments

WA1: Performance Task

Application of Skills

Show understanding of Science concepts learnt

WA2: Pen and Paper

Booklet A: MCQ

Booklet B: Structured Questions

End of Year Assessment

Booklet A: MCQ

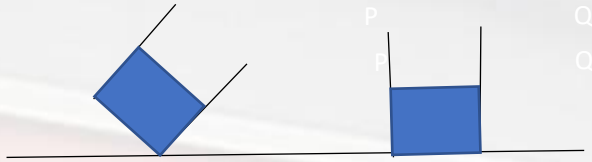
Booklet B: *Structured Question*

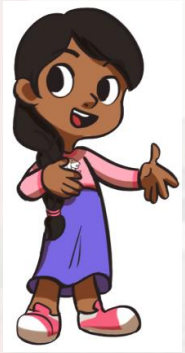
Examples and Applications in Different Contexts in Science

Example 2: Matter

Concept:
Properties of Matter

A substance is put in a container.
The container is placed in positions A and B below.
The object is definitely a solid. Do you agree?

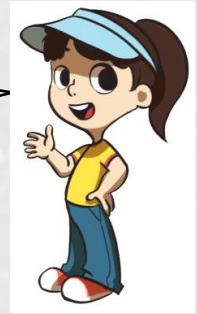




Yes, it is a solid because it takes up the same amount of space in positions A and B.

Yes, the substance has a fixed shape and volume in both positions A and B.

Yes, the substance did not change its shape in position A.

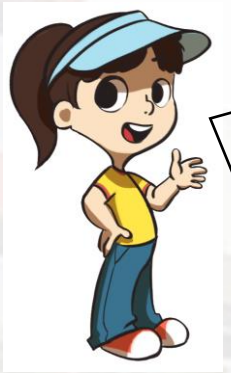


If the substance only takes up the same amount of space in the container, it may be a liquid.
There is insufficient evidence to conclude that the substance is a solid.
The substance is definitely a solid if it has a definite shape and volume.

Example 2: Matter

Applications in daily life

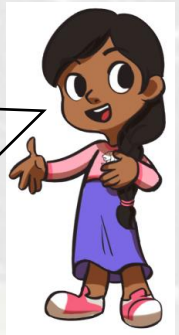
Properties of solids, liquids and gases are applied in our everyday life.



We can fill balloons of different shapes and sizes as gases have no definite shape and volume!

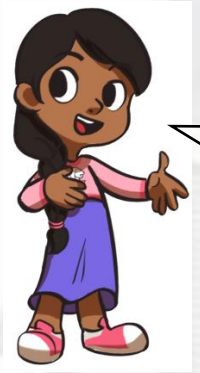
Water takes the shape of the containers as it has no definite shape.

We can also have ice sculptures in cold environment as ice has a definite shape and volume.



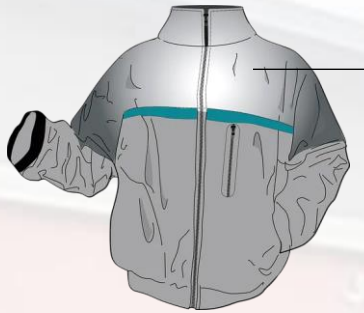
Example 3: Heat

Concept:
Heat Conduction



Air slows down heat flow.

This jacket keeps us warm because ...



Air prevents coldness from reaching us.

Air is a poor conductor of heat.

The description of coldness being transferred is conceptually incorrect.
Heat is transferred from a warmer region to a colder region.
The air in jacket slows down heat flow away from the body rather than prevents coldness from reaching us.

Example 3: Heat

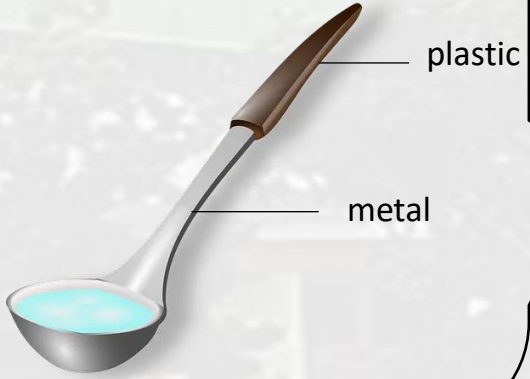
Applications in daily life

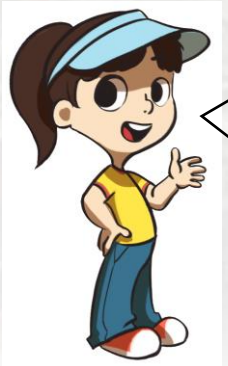
Some objects are better conductors of heat so they allow heat to flow through faster than others. What are some examples of heat flow in our everyday life?

Heat flows through the metal pot quickly to cook our food.

Some objects are made of both good and poor conductors of heat, such as the soup ladle.

I can hold the plastic handle safely when getting my hot soup.





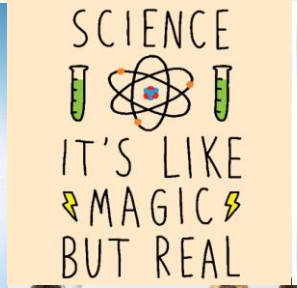
Heat flows through the cardboard slowly so that I can hold my hot drink.

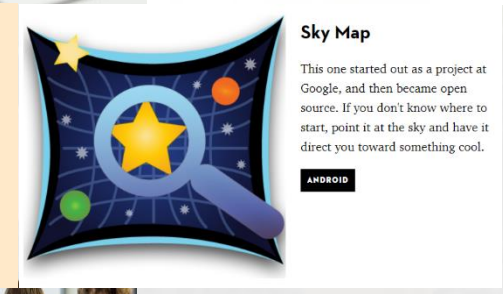
Supporting our Pupils

Repository for revision

Support if child is keen on investigative work

Actively engaging the mind





Daily happenings around us

- Weather patterns
- Fungi growing along roadside
- Technology/research

Interest building – Some apps online/mobile apps

Reading

Tips on Parental Involvement

- Encourage curiosity

Encourage pupils to ask questions about things that happen around them. *Give praise* when a good question is asked. It is perfectly alright not to know the topic your child is interested in. The process of discovering new information and facts together encourages bonding.

- Be positive and supportive

If you can role model and display a genuine interest in science and how things work around us, it will have a positive impact on your child's attitude towards science.

- Point out the everyday Science around us

Use everyday objects or phenomenon to highlight the connection and importance of science to the world we live in.

- Provide ample opportunities or stimulating environments for informal science learning

- family outings to Mandai Wildlife Reserve, Botanic Gardens, Science Centre
- a short film shown on a television or video clip from YouTube or other websites
- visit the library, the parks


Thank You