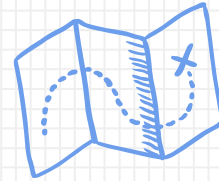


Vision

An inquirer with a passion for Science.

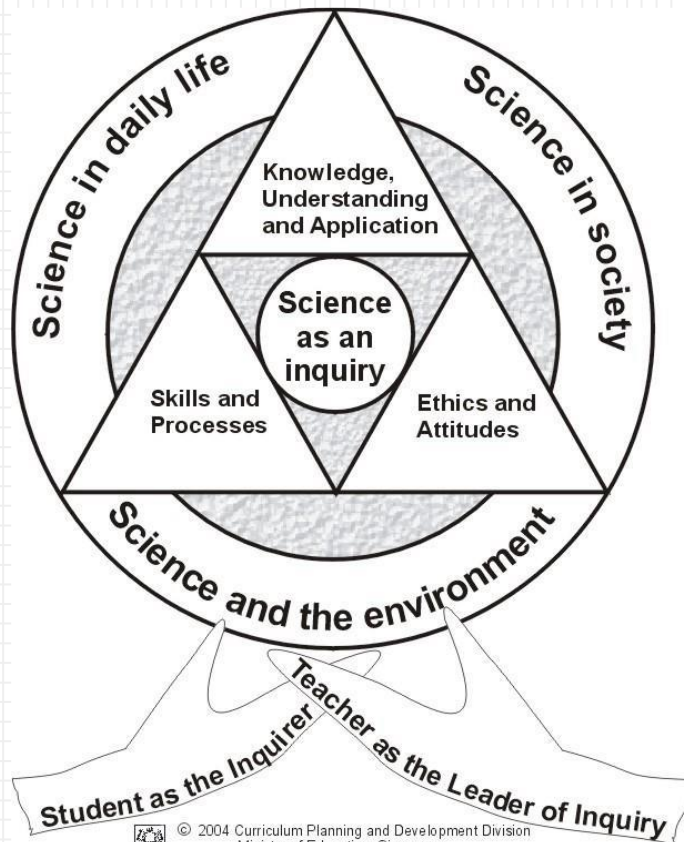


Mission

- To develop students with an inquiring mind.
- To equip students with scientific knowledge and skills.
- To make the learning of Science fun, meaningful and relevant.



Science Curriculum Framework



Inquiry-based learning starts by posing questions, problems or scenarios rather than simply presenting established facts or portraying a smooth path to knowledge. The process is facilitated by the teacher.

Content

- Scientific phenomena, facts, concepts and principles
- Scientific vocabulary, terminology and conventions
- Scientific instruments and apparatus including techniques and aspects of safety
- Scientific and technological applications

Ethics & Attitudes

Curiosity, Creativity, Integrity, Objectivity, Open-mindedness, Perseverance, Responsibility

Skills & Processes

Observing, Comparing, Classifying, Using Apparatus & Equipment, Communicating, Inferring, Formulating hypothesis, Predicting, Analysing, Generating possibilities, Evaluating

Good content knowledge is not enough...

Content Knowledge

+

Skills and Processes
(Scientific Method and
Experimental Design)

+

Application and articulation of
concepts into **authentic situations**



- While there are certain scientific terms and concepts taught, pupils can demonstrate their understanding by using their own words.
- The focus of learning science is **not** on giving “standard answers” or keywords, but on **developing students’ ability to inquire, understand and explain scientific phenomena.**

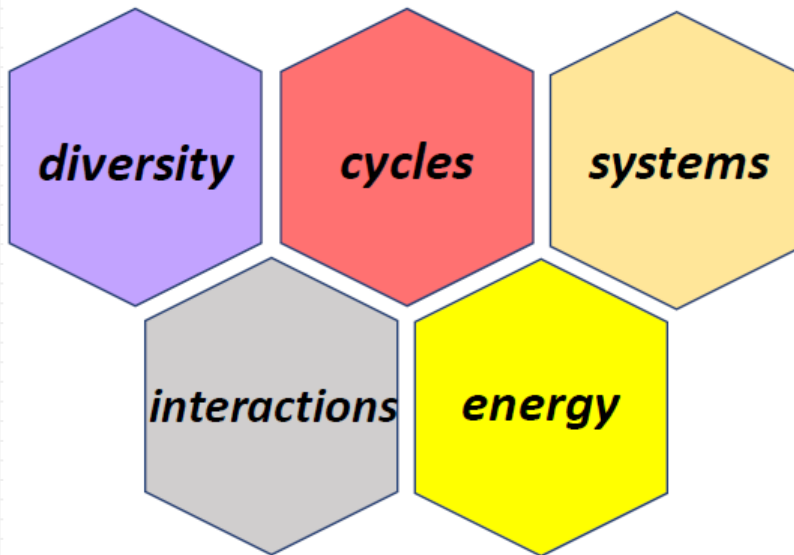
- The learning of science **does require a certain level of clarity though**, in the way concepts are explained, given the **context of the question**.
- Otherwise, **we may end up endorsing misconceptions** in students or rewarding them for ambiguous responses.



Strategies

- **Read the questions carefully.**
- Identify key phrases and words in the question stem before attempting to answer.
- **Identify the concept** tested.
- **Model** answering techniques.
- Reinforce use of Visible thinking routines
 - answering techniques.

Themes in Primary Science



Primary Science Syllabus Overview

Themes	Lower Block (P3 & P4)
Diversity	<ul style="list-style-type: none">• Diversity of living and non-living things• Diversity of materials
Cycles	<ul style="list-style-type: none">• Cycles of plants and animals (Life cycles)• Cycles in matter and water (Matter)
Systems	<ul style="list-style-type: none">• Plant system (Plant parts and functions)• Human system (Digestive system)
Interactions	<ul style="list-style-type: none">• Interaction of forces (Magnets)
Energy	<ul style="list-style-type: none">• Energy forms and uses (Light)• Energy forms and uses (Heat)



Assignments

- Activity Book*
- Worksheets (filed in the Science file)
- Practice papers before SA2

**Please keep the P3-P6 work for revision!*

Assessment

Weighted Assessments Terms 1 to 3 (35%)	Semestral Assessment Term 4 (65%)
<p data-bbox="47 325 636 437">In the form of Performance Tasks / Topical Review</p> <p data-bbox="47 517 334 568">Term 1 (10%)</p> <p data-bbox="47 583 334 634">Term 2 (15%)</p> <p data-bbox="47 648 334 699">Term 3 (10%)</p>	<p data-bbox="686 325 1076 372">1 hour 45 minutes</p> <p data-bbox="686 456 1305 568">Booklet A: 28 questions (56marks)</p> <p data-bbox="686 583 1362 699">Booklet B: 12-13 questions (44marks)</p> <p data-bbox="686 779 1343 885">All topics covered in P3 and P4 will be tested.</p>

- ✓ Speaking
- ✓ Doing
- ✓ Visiting
- ✓ Reading

Speaking

Language used in Science is very often different from our day-to-day language.

Why do your legs feel cold when you put them in the water in the swimming pool?

- The water is cold.
- Your body is warm.
- I'm not wearing any clothes.



Speaking

- **Concept:** Heat travels from a hotter to a colder place.
- Your body temperature (37°C) is higher than the temperature of the water in the swimming pool.
- Your body **loses heat** to the water in the swimming pool (and the water gains heat). Thus, you feel cold.



- Green beans
- Chilli seeds
- Peanuts
- Mould on food (bread)
- Mushroom kits

- Mealworms
- Fish
- Caterpillars

****Bear in mind – responsibilities involved in pet ownership**

Doing – E.g. growing green beans as a scientific investigation

Science Concepts:

- Characteristics of living things:
 - Living things need food, air and water.
- Conditions needed for germination
 - Air, warmth, Water
- Experimental variables
 - Hypothesis, variables

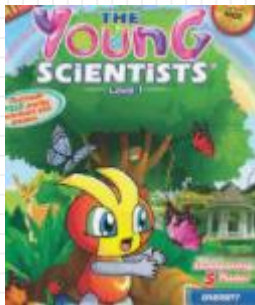
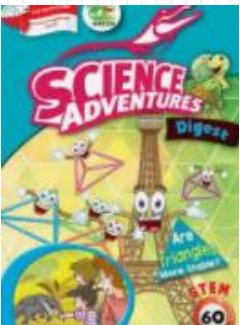
Skills to learn -

Observing, Comparing, Classifying, Using apparatus and equipment, Communicating, Predicting, Formulating Hypothesis

- Singapore Zoo / Night Safari / River Safari
- S.E.A. Aquarium, Sentosa
- Marina Barrage
- Kranji Farms
- Parks (E.g. Hortpark)
- Gardens by the Bay / Botanics
- Sungei Buloh Wetland Reserve / Nature parks
- Singapore Science Centre
- **Everywhere and Anywhere!**

Reading

- Science Books
- Newspapers
- Magazines (National Geographic)
- THINK Science
- Science Adventures
- Young Scientists



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Thank you.