

SCIENCE @ RMPS

2021

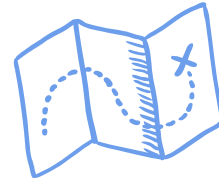


Vision

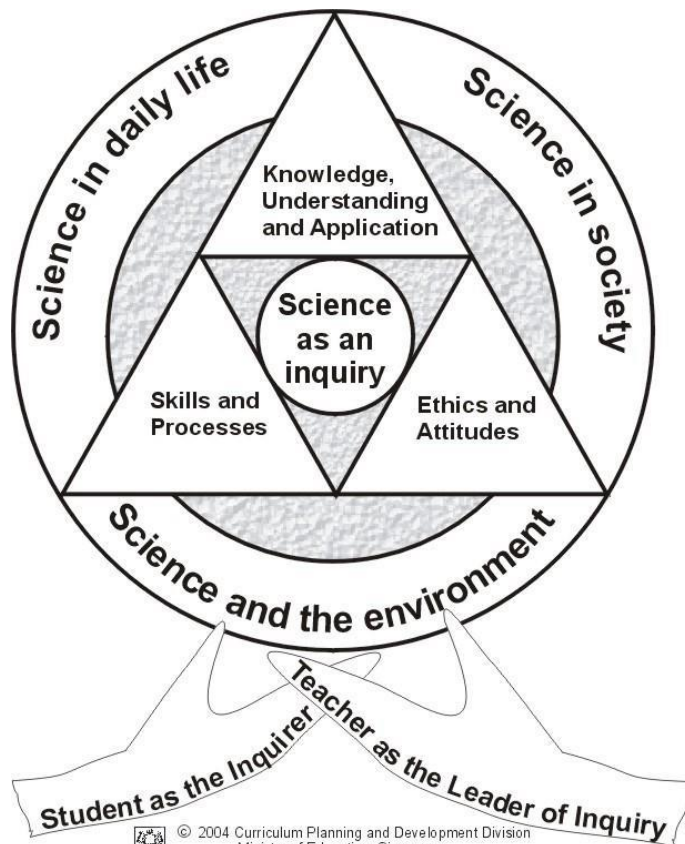
An inquirer with a passion for Science.

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

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

+


+

Application and articulation of
concepts into authentic situations

A vertical collage of 30 hand-drawn icons representing various scientific fields. The icons include: a beaker with bubbles, a calculator, an atom, a question mark, a cell, a microorganism, a graph with a bell curve, a globe, a molecule, a globe on a stand, a test tube with a plant, a fish, a lightbulb, a plug, the equation $E=mc^2$, a pi symbol, a book, a heart rate line, a lightbulb, a star, a beaker, a microscope, a planet with a ring, a brain, a DNA helix, a molecule, and the chemical formula H_2O .

-
- A vertical collage of 30 hand-drawn icons representing various scientific fields. The icons include: a beaker with bubbles, a calculator, an atom, a question mark, a cell, a microorganism, a graph with a bell curve, a globe, a molecule, a globe on a stand, a test tube with a plant, a fish, a lightbulb, a plug, the equation
- $E=mc^2$
- , a pi symbol, a book, a heart rate line, a lightbulb, a star, a beaker, a microscope, a planet with a ring, a brain, a DNA helix, a molecule, and the chemical formula
- H_2O
- .

A vertical collage of 30 hand-drawn icons representing various scientific fields. The icons include: a beaker with bubbles, a calculator, an atom, a question mark, a cell, a microorganism, a graph with a bell curve, a globe, a molecule, a globe on a stand, a test tube with a plant, a fish, a lightbulb, a plug, the equation $E=mc^2$, a pi symbol, a book, a heart rate line, a lightbulb, a star, a beaker, a microscope, a planet with a ring, a brain, a DNA helix, a molecule, and the chemical formula H_2O .

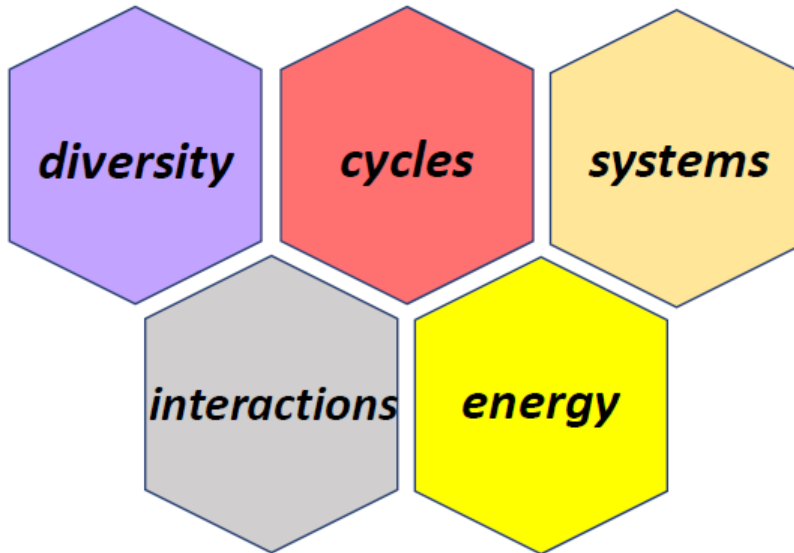
- 
- A collection of blue line-art icons representing various scientific fields: chemistry (flask, beaker, atom, cell, virus, molecule), physics (calculator, graph, lightbulb, plug, magnet, planet Saturn), biology (microscope, cell, virus, DNA helix), and general science (globe, rocket, compass, abacus, pi symbol, square root symbol, star, H2O molecule).
- 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 (highlight) key phrases and words in the question stem before attempting to answer.
- **Identify the concept** tested.
- **Model** answering techniques.
- Reinforce use of
Concept – Apply – Link (CAL) /
Claim – Evidence – Reason (CER)
answering techniques.



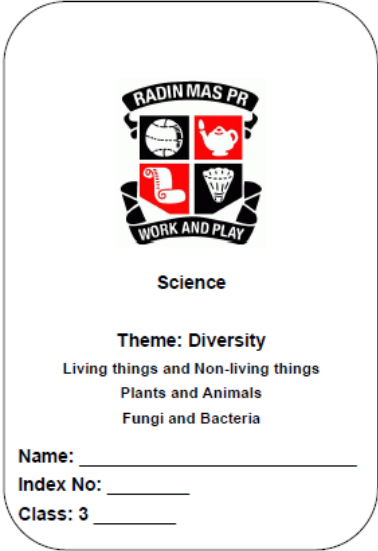
Primary Science Syllabus Overview (P3)

Themes	Lower Block (P3)
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)
Systems	<ul style="list-style-type: none">• Plant system (Plant parts and functions)• Human system (Digestive system)

Assignments

- P3 Package
- Worksheets (filed in the Science file)

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



The worksheet cover features a central logo for Radin Mas PR, which is a shield divided into four quadrants: top-left (globe), top-right (teapot), bottom-left (red square with white symbol), and bottom-right (diamond). Above the shield is a banner reading 'RADIN MAS PR' and below it is a banner reading 'WORK AND PLAY'. Below the logo, the word 'Science' is printed. Further down, the theme 'Theme: Diversity' is listed, followed by 'Living things and Non-living things', 'Plants and Animals', and 'Fungi and Bacteria'. At the bottom, there are three fields for student information: 'Name: _____', 'Index No: _____', and 'Class: 3 _____'.

RADIN MAS PR

WORK AND PLAY

Science

Theme: Diversity
Living things and Non-living things
Plants and Animals
Fungi and Bacteria

Name: _____
Index No: _____
Class: 3 _____

Assessment

Weighted Assessments Terms 1 to 3 (35%)	Semestral Assessment Term 4 (65%)
<p>In the form of Performance Tasks / Topical Review</p> <p>Term 1 (10%) Term 2 (15%) Term 3 (10%)</p>	<p>1 hour 30 minutes 80 marks</p> <p>Booklet A: 24 questions</p> <p>Booklet B: 10-12 questions</p> <p>All topics covered in P3 will be tested.</p>

Key Programmes

Integrated Trail

STEAM Week

Take home kits
Mealworms /
Caterpillar /
Seed planting

Green
Champions

E2K (Starting P4)



Parents as Facilitators

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



Speaking

Why X is a bird?

- It can fly.



X



- **Concept:** Characteristics of bird
- It has feathers, a beak and a pair of wings.

- Green beans
- Chili seeds
- Peanuts
- Bread mould
- Mould on oranges

- Green beans
- Chili seeds
- Peanuts
- Bread mould
- Mould on oranges

- Mealworms
- Fish
- Crayfish
- Snails
- Bear in mind – responsibilities involved in pet ownership

- Mealworms
- Fish
- Crayfish
- Snails
- Bear in mind – responsibilities involved in pet ownership

Doing – E.g. growing green beans

Science Concepts:

- Living things need food, air and water.
- What are the conditions needed for germination?
- How can I prevent my green bean from germinating?
- When does the developing seed need sunlight?



Doing – E.g. growing green beans

- Plants need sunlight to make their own food.
- Plants can reproduce from seeds.
- How to conduct a fair test?
- And more ...

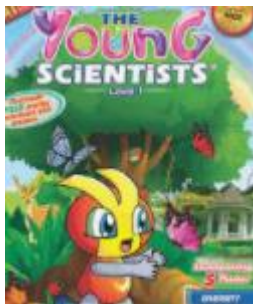
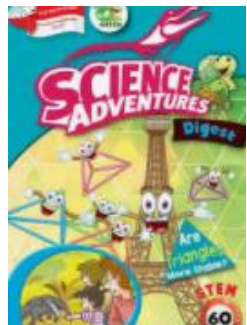
Observing, Comparing, Classifying, Using apparatus and equipment, Communicating, Predicting, Formulating Hypothesis



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

Reading

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



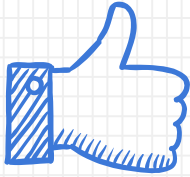
Our Contacts

Mrs Goh Hean Mei

chan_hean_mei@schools.gov.sg

Mrs Cindy Ten

han_qiuyan_cindy@schools.gov.sg



Thank you.