Shuqun Primary

Requirements for Subjects Offered at PSLE (2022)

SCIENCE

&

FOUNDATION SCIENCE

OUTLINE

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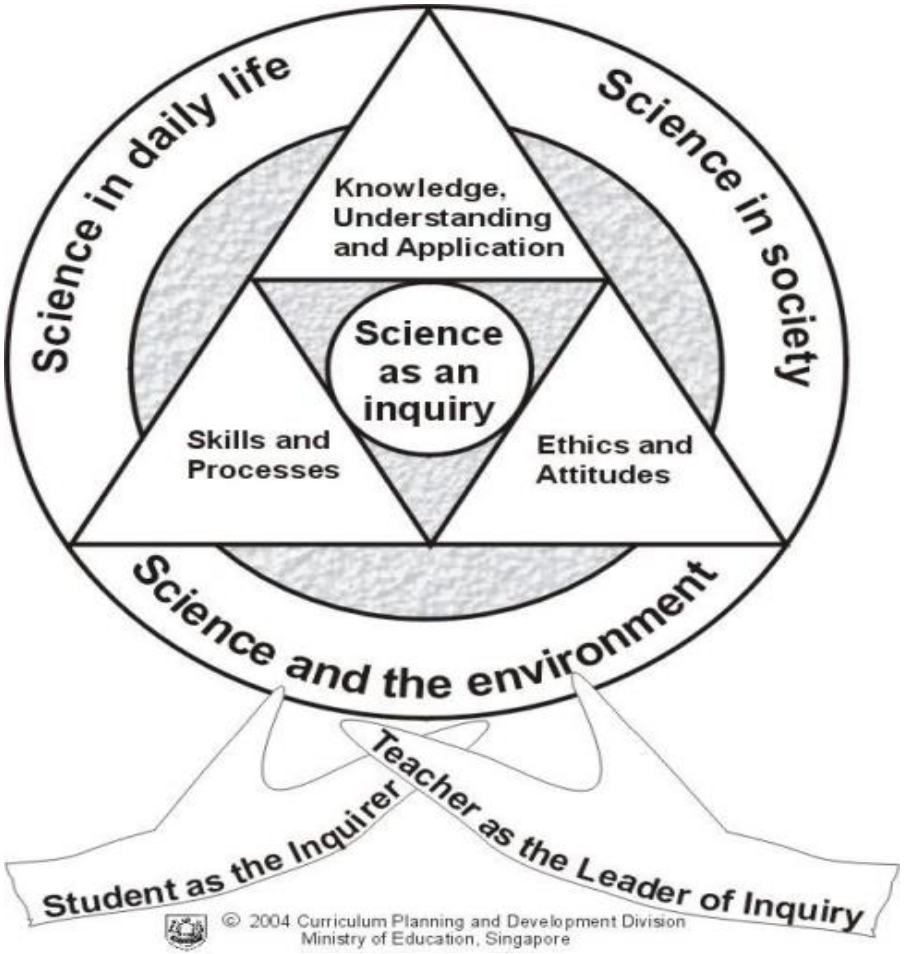
- Overview of Primary Science Syllabus
- Assessment Objectives
- PSLE Paper Format (Standard and Foundation)
- Examples of PSLE Questions
- How you can support your child's learning

OVERVIEW OF SCIENCE CURRICULUM FRAMEWORK



www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/science-primary-2014.pdf

PRIMARY SCIENCE SYLLABUS

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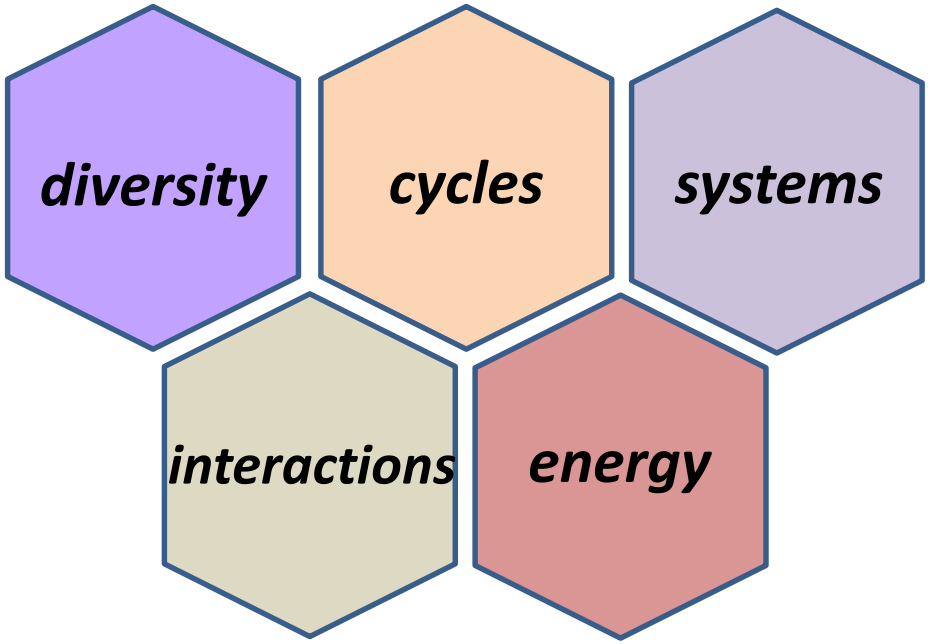
Themes in Primary Science



Life Science

Physical Science

www.moe.gov.sg/docs/default-source/document/education/syllabuses/sciences/files/science-primary-2014.pdf

SYLLABUS COVERAGE (P3-P6)

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Theme	Life Sciences	Physical Sciences
Diversity	Diversity of living things	Diversity of non-living things Diversity of materials
Cycles	Cycles in plants and animals (Life Cycles, Reproduction)	Cycles in matter and water
Systems	• Plant system (Plant parts and functions) • Human system (Digestive system) • Plant system (Respiratory and circulatory systems) • Human system (Respiratory and circulatory systems) • Cell system	Electrical system
Interactions	Interactions within the environment	Interaction of forces (Magnets, Frictional force, gravitational force, force in springs)
Energy	Energy forms and uses (Photosynthesis)	Energy forms and uses (light and heat) Energy conversion
Weighting	**45 – 55%**	**45 – 55%**

ASSESSMENT OBJECTIVES

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Assessment Objectives	Weighting	
	Standard SC	Foundation SC
I. Knowledge with Understanding ○ Demonstrate knowledge and understanding of scientific concepts and principles	40%	50%
II. Application of Knowledge and Process Skills ○ Apply concepts and principles to new situations ○ Interpret information and investigate using one or more process skills	60%	50%

- Inferring
- Predicting
- Analysing
- Generating possibilities
- Evaluating
- Formulating hypothesis
- Communicating

PSLE PAPER FORMAT (STANDARD SCIENCE)

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The examination consists of one written paper comprising two booklets: Booklet A and Booklet B.

Booklet	Item Type	Number of Questions	Number of marks per question	Marks
A	Multiple-choice *(4 options provided)*	28	2	56
B	Open-ended	12 -13	2,3,4, or 5	44
Total: 100 marks				

- Duration of paper: 1 hour and 45 minutes
- Candidate can attempt any of the booklets first

PSLE PAPER FORMAT (FOUNDATION SCIENCE)

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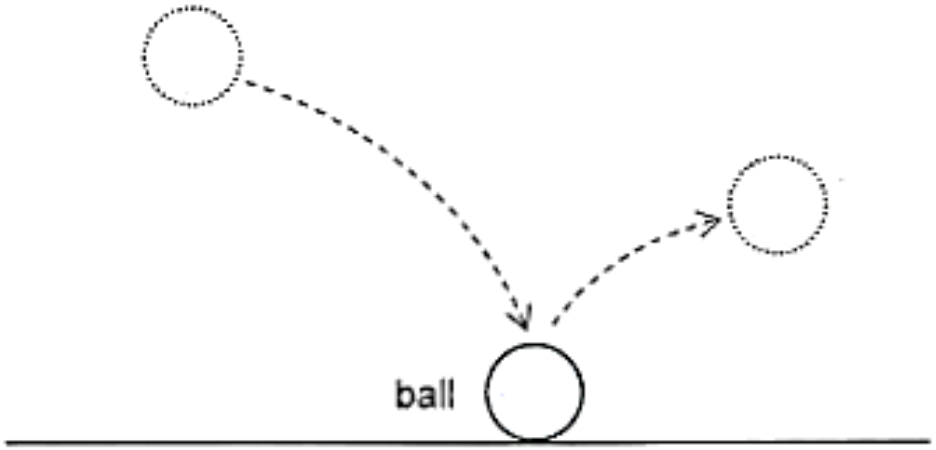
The examination consists of one written paper comprising two booklets: Booklet A and Booklet B.

Booklet	Item Type	Number of Questions	Number of marks per question	Marks
A	Multiple-choice *(3 options provided)*	18	2	36
B	Structured Open-Ended	6 - 7 5 - 6	2,3 2,4	14 20
Total: 70 marks				

- Duration of Paper: 1 hour and 15 minutes
- Provision of word list is provided

Standard Science
Example 1: Multiple-Choice Question

The diagram shows the moment when a rubber ball hit the ground. After the bounce, the ball reached a lower height than where it started.



What was the energy conversion at the moment when the ball hit the ground?

(1) potential → kinetic

(2) kinetic → potential

(3) kinetic → potential + sound

(4) kinetic + sound → potential

Concept:

Conversion of kinetic energy to gravitational potential energy of the ball as it bounced up after hitting the ground

Source: SEAB

Standard Science
Example 2: Open-Ended Question

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A worker used a truck to deliver blocks of ice. A mist was seen when ice was taken out of the truck as shown.

(a) Explain how the mist was formed. [2]

(b) The mist disappeared after a short time. Explain why. [1]

(c) Thick plastic strips were hung at the door to prevent the ice inside the truck from melting. Explain why. [1]

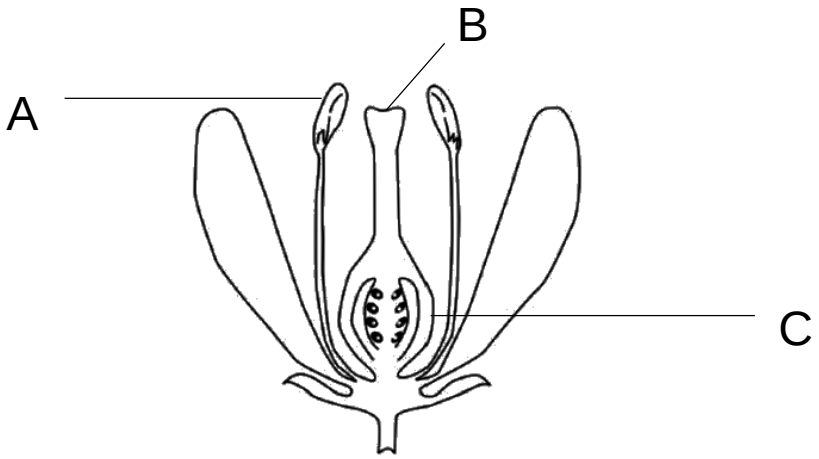
Concept:

Application of water cycle and understanding of heat conductor

Source: SEAB

Foundation Science
Example 3: Multiple-Choice Question

Study the diagram below.



Which part develops into a fruit after fertilisation?

(1) A
(2) B
(3) C

Concept:

Part of flower that develops into a fruit after fertilisation

Source: SEAB

Foundation Science
Example 4: Structured Question

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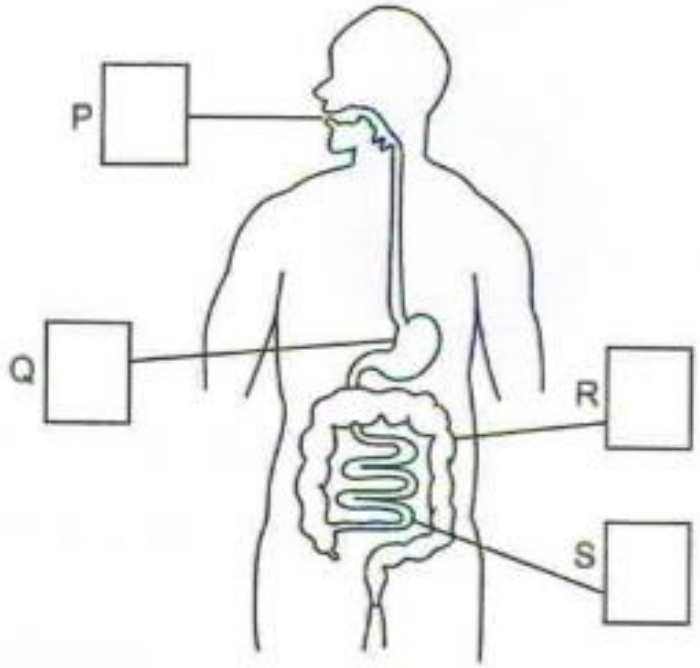
The diagram shows parts, P, Q, R and S, of the digestive system.



Concept:

Functions of the parts in a digestive system

(a) In the diagram above, tick (✓) the boxes where digestive juices are produced. [2]

(b) Circle the correct answer. [1]

All digestion ends in part (P / Q / R / S).

Source: SEAB

Foundation Science
Example 5: Open-Ended Question

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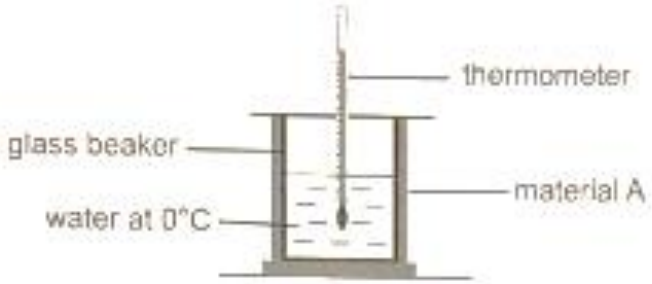
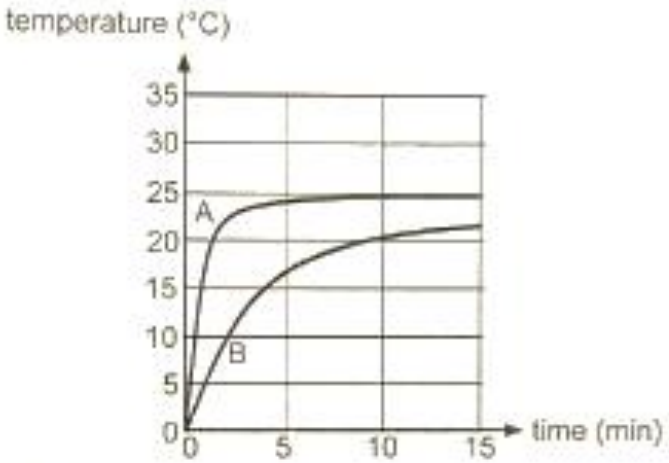
Using the set-up below, Baoyu measured the temperature of water at different times in a room.



She repeated the experiment for another material B. She plotted her results as shown.



Concept/Skill:

Heat transfer and Interpreting graphical data

(a) From the graph, what is the temperature in the room? [1]

_____ °C

Source: SEAB

Foundation Science
Example 5: Open-Ended Question

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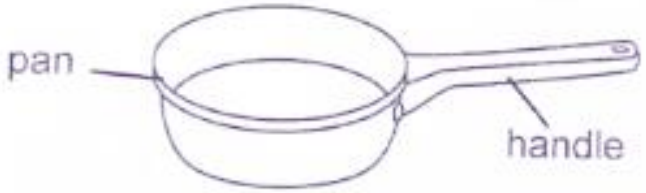
(b) The diagram shows a cooking pan.



When the pan is heated, the handle must be cool enough to be used safely. Which material (A or B) should be used to make the handle? Give a reason for your answer.

[2]

_____

_____

Concept:

Plastic is a poor conductor of heat.

Source: SEAB

RISE Strategy

(Multiple-Choice Questions)

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Read the question carefully. Study the given diagrams, tables or graphs.

Identify the topic and concept tested.

Study all the options carefully.

Eliminate distractors to arrive at the best possible answer.

RISE Strategy

(Open-Ended Questions)

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Read the question carefully. Study the given diagrams, tables or graphs.

Identify the topic and concept tested.

Select the relevant concept to answer the question. Check mark allocation and answer to the point.

Express and **explain** your answer clearly.

STRATEGIES IN ANSWERING OPEN-ENDED QUESTIONS

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Common Exam Words / Phrases /Questions

Questions with the following terms:

- ***State***
- ***Identify***
- ***List***
- ***Name***
- ***Give an example***

Requires short and concise answers. No explanation is needed.

STRATEGIES IN ANSWERING OPEN-ENDED QUESTIONS

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- Questions with the following terms:

  Explain
  Why
  Infer
  Describe
  Conclude
  Give a reason

Longer answers that require more details and keywords.
Involve scientific reasoning and reference to science concepts.

<u>DO NOT</u> give one or two word answers.

COMMON OBSERVATIONS

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- Students have **difficulty identifying concepts** required to answer questions.

- Students‘ answers are **not clear and comprehensive**, lacking in scientific reasoning.

- Students’ answers are **not relevant to the context of the question**.

SUPPORTING YOUR CHILD IN SCIENCE

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Strengthen your child's conceptual understanding by supporting your child to do the following:

- Develop a daily routine for revision and homework.
- Revise Primary 3 to 6 topics.
- Go through topical worksheets, exam practice papers, activity books and textbooks.
- Use mindmap/concept maps to make notes.
- Attempt practice papers within the stipulated time

PSLE PREPARATION & STRATEGIES

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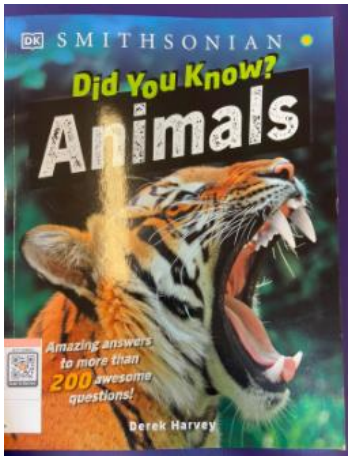
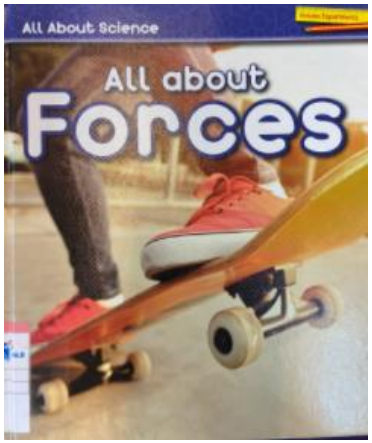
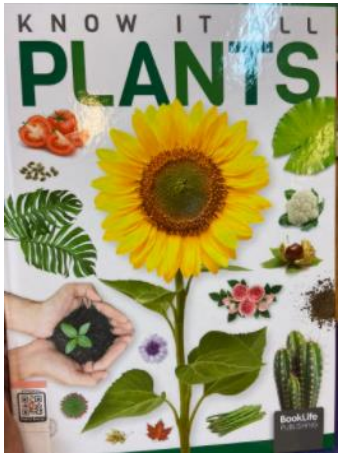
- **Develop the love for science** in your child by encouraging their questions and relating science concepts to things around them.

- Encourage your child to read books or magazines related to Science.







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Thank You!

For further queries, you may consult your child's  teacher!