

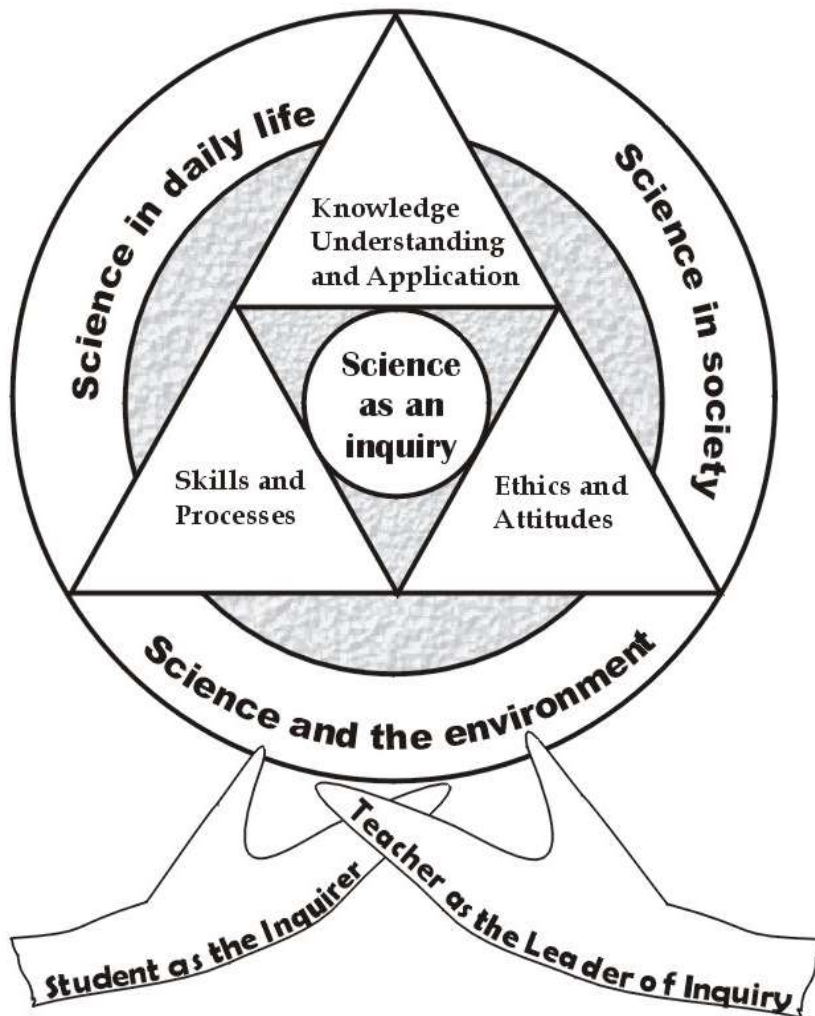


Pioneer Primary School

P3 Science Sharing

13 April 2018

Learning Science in Primary School



- Learning science as inquiry – ask questions
- Skills and process
- Attitudes and ethics

Development of Syllabus

Lower Block (P3/P4)	Upper Block (P5/P6)
<p>Diversity</p> <ul style="list-style-type: none">• Diversity of Living and Non-living Things• Diversity of Materials	
<p>Systems</p> <ul style="list-style-type: none">• Plant Systems (Plant parts and functions)• Human Systems (Digestive System)	<p>Systems</p> <ul style="list-style-type: none">• Plant System• Human System• Cell System• Electrical System
<p>Interactions</p> <ul style="list-style-type: none">• Magnets	<p>Interactions</p> <ul style="list-style-type: none">• Interaction of forces• Interaction with the environment

Development of Syllabus



Lower Block (P3/P4)	Upper Block (P5/P6)
<p>Cycles</p> <ul style="list-style-type: none">• Cycles in plants and animals• Cycles in matter	<p>Cycles</p> <ul style="list-style-type: none">• Cycles in plants and animals• Cycles in matter and water
<p>Energy</p> <ul style="list-style-type: none">• Light Energy• Heat Energy	<p>Energy</p> <ul style="list-style-type: none">• Energy forms and uses• Energy conversion

Teaching Periods



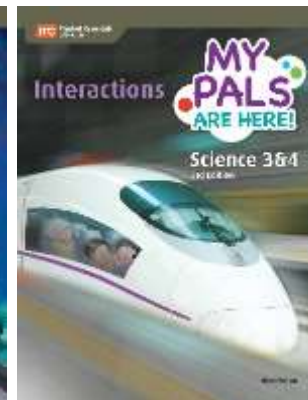
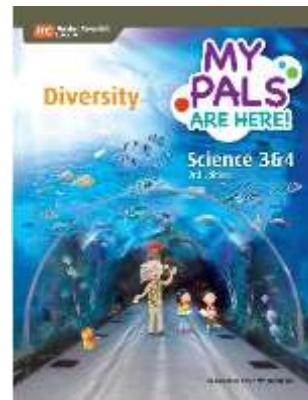
4 periods (2 hours of science) per week

Help your child to be prepared for science lessons by:

- Reminding your child to bring books for science lesson.
- Encouraging your child to read the science textbook regularly.

Teaching & Learning Resources

- My Pals Are Here! textbooks
- School-based worksheets
- Science notebook
- Science file



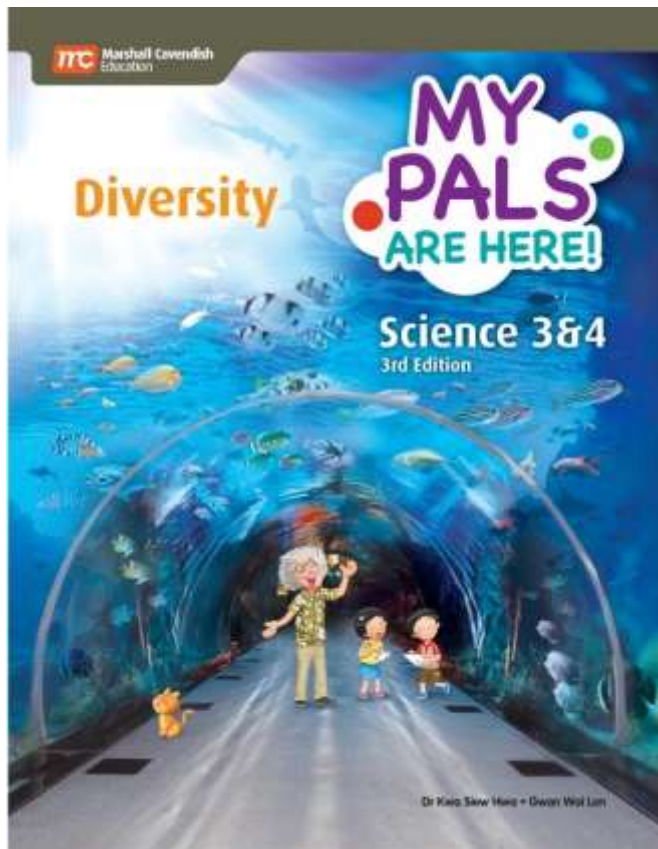
How Science is taught?

Hands-on experiments

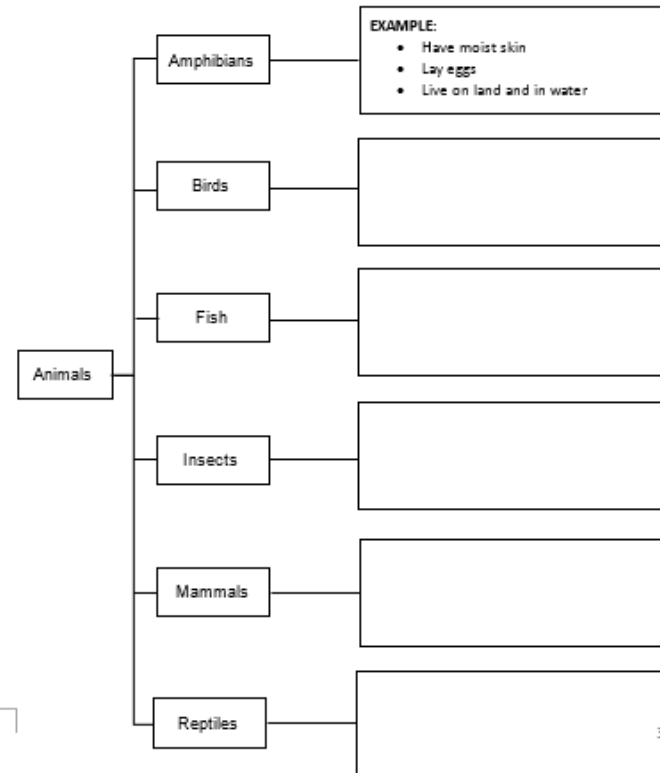


How Science is taught?

Concepts teaching



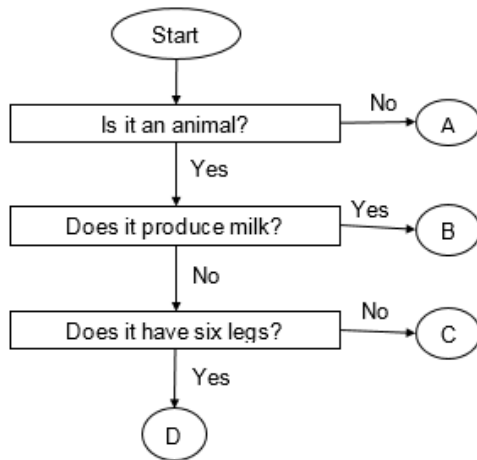
3. Fill in the blanks in the concept map below.



How Science is taught?

Applications of concepts (School-based activity worksheets)

4. Study the flow chart below carefully.



Which of the following represent 'A', 'B', 'C' and 'D' correctly?

	A	B	C	D
(1)	Plant	Bird	Mammal	Insect
(2)	Plant	Mammal	Insect	Bird
(3)	Plant	Mammal	Bird	Insect
(4)	Insect	Mammal	Fish	Bird

[Section B] Structured questions

Read the questions carefully. Write your answers in the spaces provided.

5. Study the two pictures below carefully.



(a) State 1 similarity between the eagle and the grasshopper.

(b) State 1 difference between the eagle and the grasshopper.

How Science is taught?

Learning journey to the Science Centre



Hands-On

- The joy of discovery
- Discovery through experiment



Think Scientifically



Thinking Routine	
Claim	A statement that answers the given question.
Evidence	Scientific data that supports the claim.
Reasoning	A justification that links the claim and evidence . It shows why the data counts as evidence by using appropriate scientific principles.

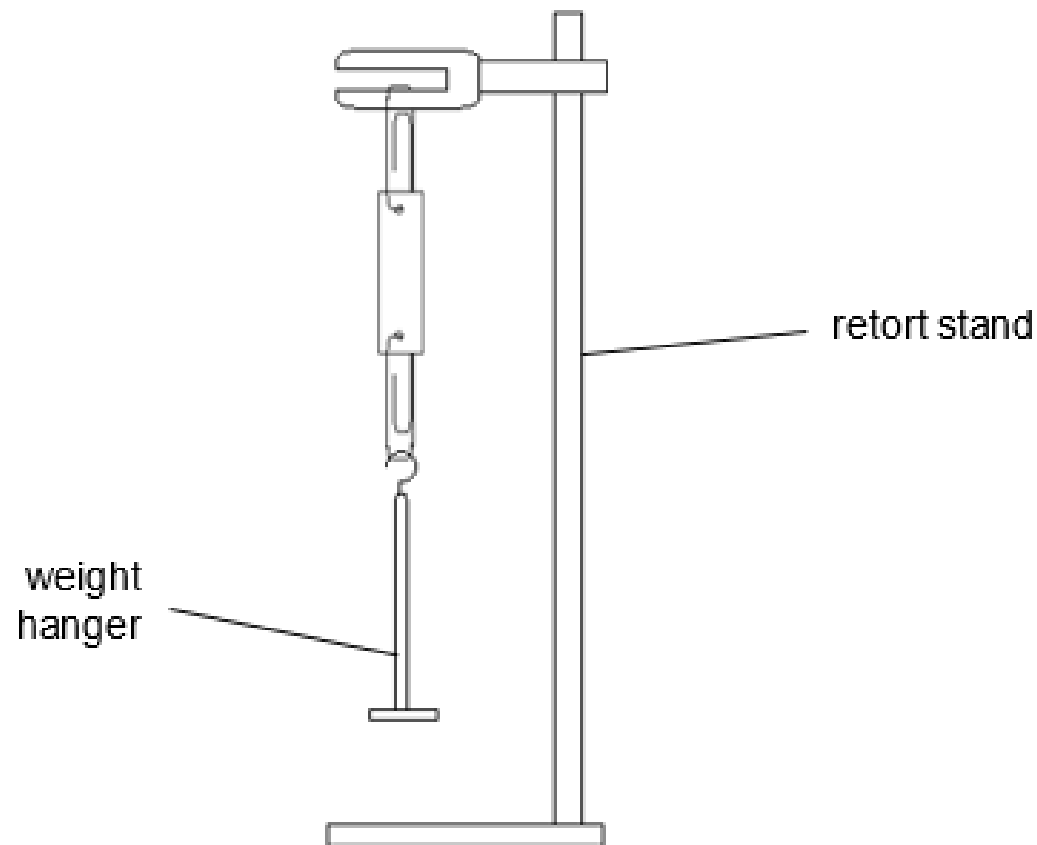
How do we describe materials?

Properties of Materials

- Which is stronger, aluminium foil or paper kitchen towel?



- Set up the experiment as shown in the diagram below.



- Hang the slotted weights onto the weight hanger one at a time until the paper kitchen towel tears. Count the number of slotted weights needed to tear it.

Claim

Aluminium foil is stronger than paper kitchen towel.

8. Record your results in the table below.

Object	Number of 20g slotted weights needed to tear the material
Paper kitchen towel	
Aluminium foil	

Evidence

Aluminium foil can hold 3 pieces of mass while tissue paper can hold 2 pieces of mass before it breaks.

Conclusion:

(a) Did your prediction match your results?

(b) Based on the results, explain which material is stronger.

_____ is stronger than _____. The number of slotted weights needed to break _____ is _____ than _____.

Reasoning

Aluminium foil can hold more mass than paper kitchen towel before it breaks, aluminium foil is stronger.

Think Scientifically



Claim

Aluminium foil is stronger than paper kitchen towel.

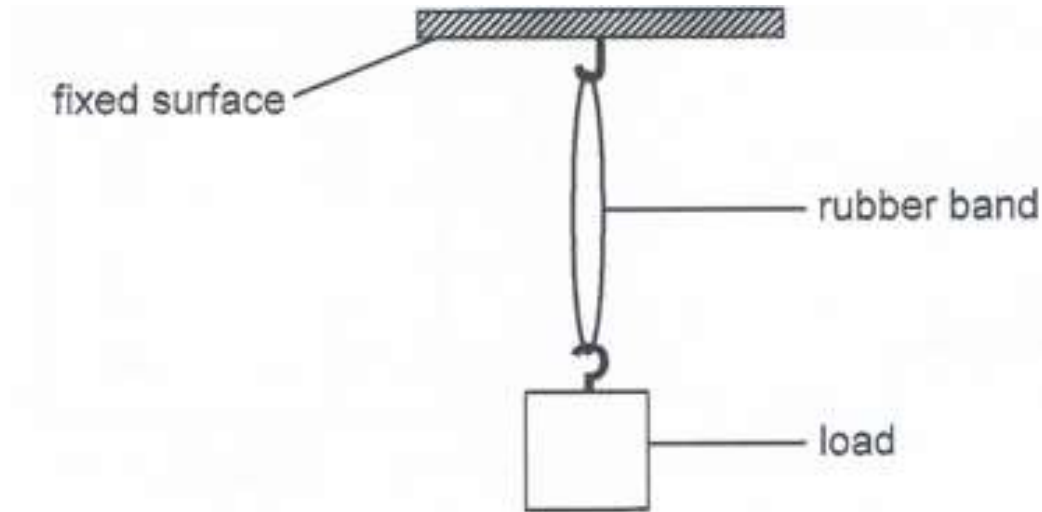
Evidence

Paper kitchen towel can hold 2 pieces of mass while aluminium foil can hold 3 pieces of mass before it breaks.

Reasoning

Since aluminium foil can **hold more mass** than paper kitchen towel before it breaks, aluminium foil is stronger.

Andy conducted an experiment using the set-up below.



He increased the mass of the load until the rubber band broke. The aim of his experiment was to find out _____.

- 1) how hard the load was
- 2) how strong the load was
- 3) how hard the rubber band was
- 4) how strong the rubber band was

Assessment



Term 1: Two topical tests

Term 2: SA1

Term 3: One topical test

Term 4: SA2

Assessment



P3 Written Exam

Type of Assessment	Booklet A (MCQ)	Booklet B (Open-ended)	Total
SA1	50 marks (25 Questions)	20 marks	70 marks
SA2	48 marks (24 Questions)	32 marks	80 marks

Partnership with Parents



- Follow-up with your child if he/she has difficulties with handing in homework on time.
- Ensure that your child revise their work.
- Check your child's work:
 - Worksheets
 - Notebook
 - Practice papers / exam papers

Keeping up with Science

- Use science textbooks and worksheets as reference when revising.
- Get a science study guide.
- Plan a revision schedule for all the topics tested in an examination. Refer to the termly communication letters for topics tested.



Other Resources

- Science Magazines (National Geographic Young Explorer, Singapore Scientist, Wildlife Wonder)
- Discovery Channel, National Geographic
- Science toys and kits (learning through play)
- World around us (teachable moments from daily life)



ASKING QUESTIONS

SMALL
QUESTIONS



LEAD TO SMALL
DISCOVERIES.



BIGGER
QUESTIONS



LEAD TO BIGGER
DISCOVERIES.





Thank You