

Primary 3 Science MTPS

Mr Christopher Khoo
HOD Science
23 January 2024

A PRESENTATION BY
BUKIT TIMAH PRIMARY SCHOOL



Science Teaching and Learning @ P3

Programme for Science Learning

- Learning Plots – Science exploration on growing plants on a small plot of land
- Science Exploration Day – Application of Science

Resources for Teaching and Learning

- Inspiring Science Textbook & Activity Book
- SAM Journals
- Topical Review & Examination Practice Paper

Additional Resources

- CER approach to tackle Open-Ended explanation questions
- Topical Checklist, Examination Review



Topical Checklist and Examination Review

Bukit Timah Primary School
Science Primary 3 SA2 Review 2022

Science Primary 3 SA2 Review 2022

Pupils have done well in the following areas:

Living and Non-Living Things:

Pupils were able to apply the correct Science ideas to questions on characteristics of living things, the different animal groups, plants and fungi. (Q2, Q3, Q8).

Factors affecting strength of magnet:

Pupils were able to identify the factors that affected the strength of temporary magnets. (Q19, Q20)

Science ideas that need review:

Area(s) for Improvement	Answers Given	Learning Point(s)
	Making Comparisons	
Q23(b), Q25(b) Characteristics of living things	When comparing differences, some pupils state the characteristic of only 1 organism, E.g. "Crocodiles lives on land but goldfish does not." Or "Fern reproduces by spores but the papaya plant does not."	Pupils need to specify the difference between two organisms and not simply state that the other organism does not have the characteristic. E.g. "Crocodile lives on land but goldfish lives in water." "Fern reproduces by spores but

Name: Aimee () Parent's signature: _____

Self-Assessment on: Diversity- Living and Non-living things

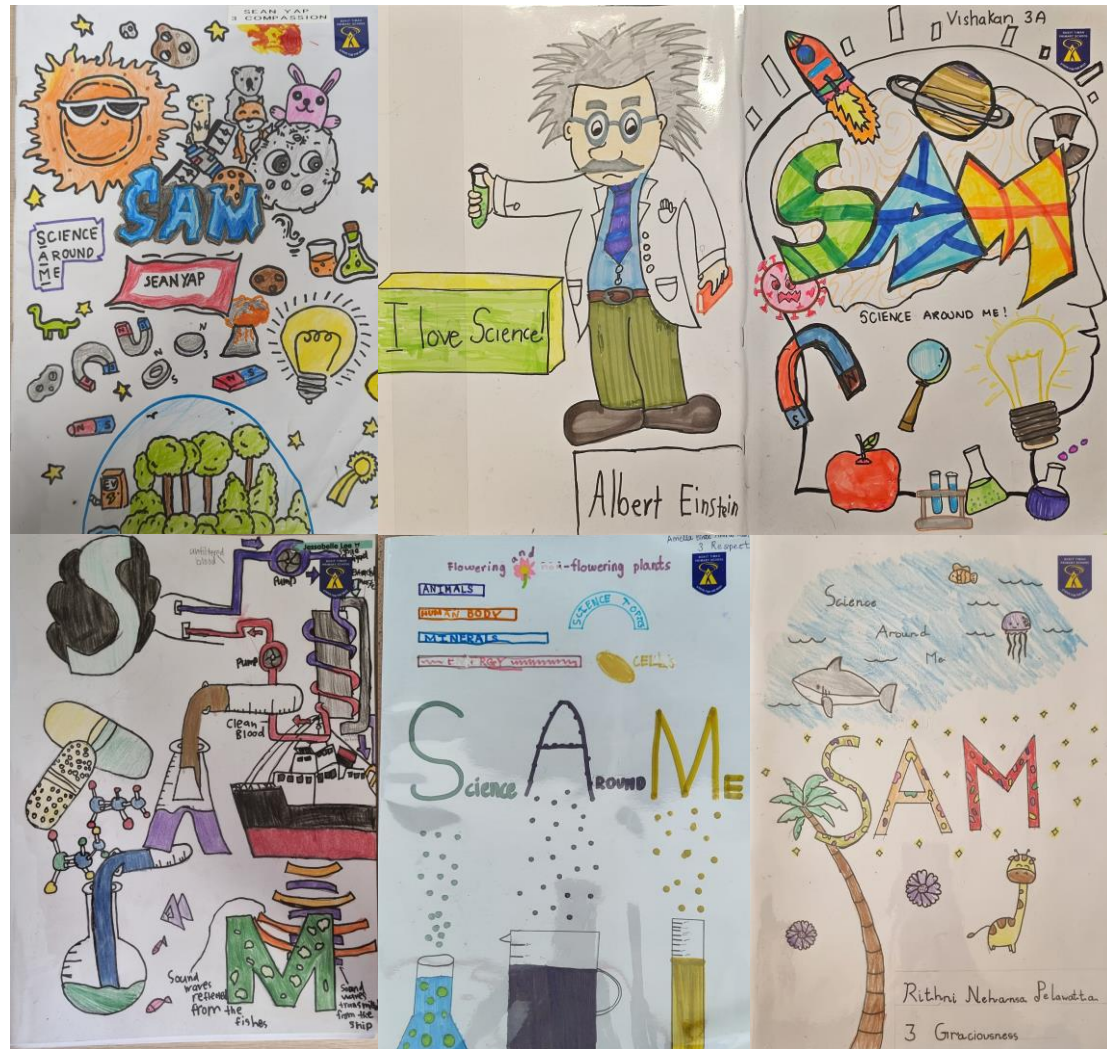
Choose the level that describes how well you have understood each of the Science ideas.

Levels	Descriptors
1	I have understood this Science idea the least . (I don't get it)
2	I have some understanding about this Science idea. (I partially get it)
3	I have understood this Science idea very well and can explain it to my friend. (I get it)

No.	Science ideas and Skills	Levels		
		1	2	3
1.	I can describe the characteristics of living things.			✓
2.	I can describe the characteristics of non-living things.			✓
3.	I can describe the similarities and differences of plants and animals.			
4.	Skill: I use the following senses like sense of sight, sense of smell, sense of hearing, sense of touch and sense of taste in making observations.			✓
5.	Skill: I can make some measurements in my observations.			✓

Science Around Me (SAM Journal)

- 1) Strive for the best
- 2) Pose questions and find out more on their own
- 3) Explain their thinking using relevant science concepts
- 4) Link science learning to life
- 5) Reflect on their learning

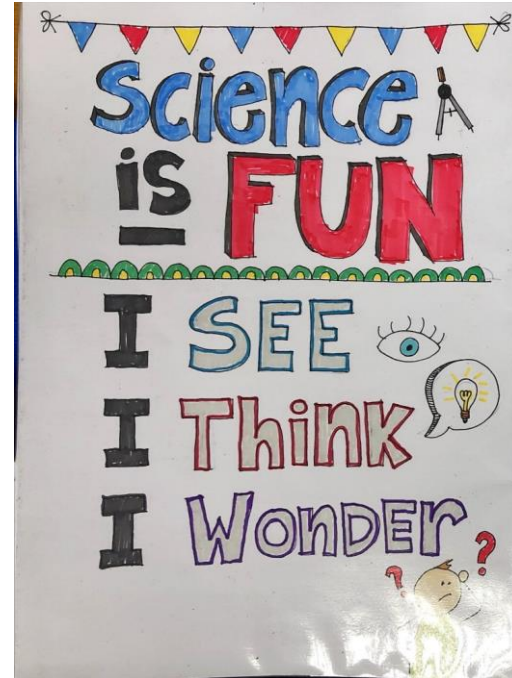


Thinking Routines

For example, Victoria looked at a picture of a bird and wrote the following,



I see	I think	I wonder
a bird feathers claws eyes tail beak	birds do not have ears birds have very good eyesight	if birds have ears. if birds have senses. Are bird's feathers thick or thin? How do birds find their food?



Thursday 12th Jan

Observation #3

see

1. It looks like a grape fruit
2. It looks like a bit milky
3. It looks crumpled

touch

1. It feels spikey
2. It is hard
3. It feels like a dried flower

Wonderful observations and documenting of it. I enjoyed reading your entries!

hear

1. Its sound is like dropping a rock
2. I hear bugs in it
3. I hear a loud sound from it

smell

1. It smells like pepper
2. It doesn't have a nice smell
3. Its smell is disgusting

Reflection

The most important thing I learnt was we cannot just write any easy observations. We should explore deeper.

Thanks for your reply... You're right! Include details and make your thinking visible by writing it down! Way to go!

Yes, you're right! How do you think we can do it? If we just write it feels like a flower. That is not enough! We should write like which part of it feels like a which part of a flower and how does it feel like a flower.

Use of 5 senses for observation

1) Strives for the best

CHARACTERISTICS OF ANIMALS

<p>Mammals</p> <ul style="list-style-type: none"> - Have fur - most of them give birth to young alive - Mammals feed on milk - breathe through lungs - warm-blooded 	<p>Amphibians</p> <ul style="list-style-type: none"> - moist skin - lay eggs - live on land and in water - breathe through lungs, gills, and skin - cold-blooded 	<p>Reptiles</p> <ul style="list-style-type: none"> - have scales - dry skin - lay eggs - some may have shells - cold-blooded
<p>Birds</p> <ul style="list-style-type: none"> - have feather - have beaks - lay eggs - most can fly - have wings 	<p>Fish</p> <ul style="list-style-type: none"> - has scales - has tails and fins - most lay eggs - breathe through gills 	<p>Insects</p> <ul style="list-style-type: none"> - three body parts - six legs - a pair of antennae - lay eggs - a pair of compound eyes

Classifying animals into different groups

2) Poses questions to find out more

Questions!

- 1) - What is a squishy really made of?
- 2) - How did people come up with names of materials?
- 3) - Can you mix two materials to make a material?
- 4) - Where can you find materials?
- 5) - Is materials everywhere?
- 6) - Where does materials produce?
- 7) - What kind of fabric is mostly used?
- 8) - Which uses materials named?
- 9) - Who is the material producer?
- 10) - What material is a magnet made of?
- 11) - What are instruments made of?
- 12) - What is a light bulb made of?
- 13) - Are all materials waterproof?
- 14) - Are there any materials that are fireproof?
- 15) - Are metals bulletproof?

Questions posed on topic: materials

Name: Aimee () Parent's signature: _____

Self-Assessment on: Diversity- Living and Non-living things

Choose the level that describes how well you have understood each of the Science ideas.

Levels	Descriptors
1	I have understood this Science idea the least (I don't get it)
2	I have some understanding about this Science idea. (I partially get it)
3	I have understood this Science idea very well and can explain it to my friend. (I get it)

No.	Science ideas and Skills	Levels		
		1	2	3
1.	I can describe the characteristics of living things.			
2.	I can describe the characteristics of non-living things.			✓
3.	I can describe the similarities and differences of plants and animals.			✓
4.	Skill: I use the following senses like sense of sight, sense of smell, sense of hearing, sense of touch and sense of taste in making observations.			✓
5.	Skill: I can make some measurements in my observations.			✓

a) One important Science idea I have learnt about **Living Things** is the characteristics of living things are: air, food, water and eyes and to breathe and grow.

b) 1 Thing I will like to find out more is dolphin

I will find out more (tick one):

on my own	<input checked="" type="checkbox"/>	by asking my friend	<input type="checkbox"/>	by asking my teacher	<input type="checkbox"/>
-----------	-------------------------------------	---------------------	--------------------------	----------------------	--------------------------

c) Write down or draw what you have learnt after you have carried out step (b).

Dolphins

Dolphins are carnivores. Known for their playful behavior, dolphins are highly intelligent. They are as smart as apes, and the evolution of their larger brains is surprisingly similar to humans.

BTPS Science Against Me (SAM) Self-assessment

So interesting, Aimee

Questions posed in checklist: Animals

Material-what if...

example- What if windows of the car were made of rubber?
 - If it was made of rubber, the driver can't see through and accident are likely to happen.

1: ~~What~~ What if your house was made of glass?
 - Everyone would see inside to see each other naked.

2: What if clothes were not of matter?
 - The clothes would be very hard to wear!
 - It would be so hard and not flexible!

3: What if chairs were made out of rubber?
 - You can't sit on it!
 - Super flexible. We won't get to sit!

4: What if your phone was made out of glass?
 - Whenever you drop it, it would break very easily and it would be very expensive to keep buying again and again.

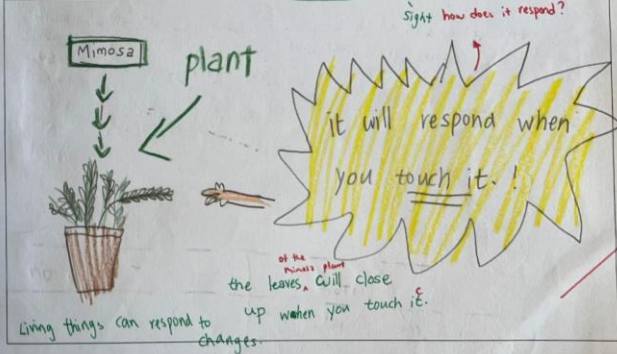
'What if' questions on Materials

Zoey Helena Hyun

Characteristic: All living things can reproduce.



Characteristic: All living things can respond to changes. - sound



3) Explain thinking using relevant science concepts

Day 1 First day of growth

Me

It's about 30 to 40

Day 2 Second day of growth

Look guys the roots are growing. I'm so happy

Day 3

The group forgot about the plant and teach Mom! instead.

Di I'm Mom! Can you teach about a plant?

Aw, you're so cute. Oh, I can't teach you about plant. But first how many steps it take to become a adult plant?

7 steps

WAKE UP MOM!

You were sleeping, Mom!

What's happening?

After the roots grow shoot/stem will start to grow. Why? Shoots/Stem give support to the plant & transport water and nutrients to other parts of the plant.

DO YOU UNDERSTAND MOM? Why're you sleeping?

1st:- Roots

When seed germinated, roots grow first. Why? Roots need to grow to help the plant absorb water and nutrients from the soil & roots anchor the plant to the ground.

2nd:- Shoots and stem

After shoots/stems have grown, leaves will start to appear. Why? Leaves will trap sunlight which allow the plant to make its own food.

3rd:- Leaves

4th:- Flowers and Fruits

Flower to beautiful will start to appear. Why? Flower/Fruit will start to appear. Why? Flower/Fruit reproduce the plant to allow to continue its life cycle.

When guys have over plant is dead!

But you said that you are going to explain to me. About a plant.

The system is so complex.

This is wonderful! Fantastic! It is like doing a revision on what was discussed in class - you made it interesting with a comic!

THE END.

Drawing to show characteristics of Living Things

Concept cartoon on Germination

Use of Magnets in everyday objects!

- 1.) List down at least 2 objects.
- 2.) Explain how the magnets work in the objects.

1.) Microphones

Scrap yard cranes
cameras
refrigerator
rollercoaster
satellite
microwave
speakers
Credit Cards
Maglev train



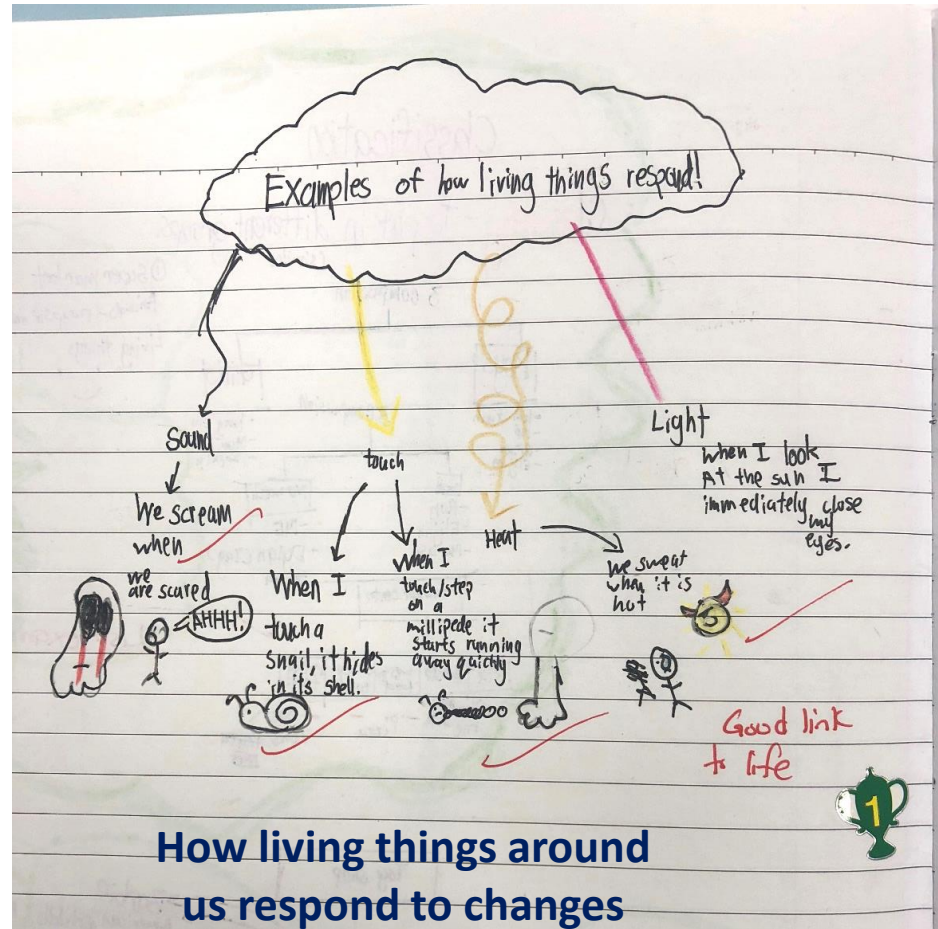
2.)

Scrap yard cranes is to pick up heavy scrap metal with the magnet at the crane.

In the maglev train that levitate by magnetic attraction, the bottom of the train wraps around the guideway. Levitation magnets on the underside of the guideway are position to attract the opposite poles of magnets on the wraparound section of the maglev. This raises the train off the track.

The stripe on the back of a credit card is a magnetic stripe, often called a magstripe is made up of tiny iron-based magnetic particles in a plastic-like film. Each particle is really a very tiny bar magnet about 20 millionths of an inch long.

How magnets are used in things around us



4) Links science learning to life

Science Assessment @ P3

	Term 1	Term 2	Term 3	Term 4
Base Mark	20	30	30	80
Weightage	10%	15%	15%	60%
Schedule*	28 Feb 2024	2 May 2024 to 16 May 2024	7 Aug 2024 to 21 Aug 2024	22 Oct 2024
Topics*	P3: Chapter 1 & 2	P3: Chapter 1-3	P3: Chapter 1-5	All P3 Topics



P3 Science Exam Format

Topical Test – Term 1

Duration: 30 min

Section	Type of Questions	Number of Questions	Marks
A	MCQ	6	12
B	Open-ended	2-4	8
	TOTAL	8-10	20

Semestral Assessment – Term 2 & 3

Duration: 40 min

Booklet	Type of Questions	Number of Questions	Marks
A	MCQ	8	16
B	Open-ended	4-6	14
	TOTAL	12-14	30



P3 Science Exam Format

Semestral Assessment

– Term 4

Duration: 1 h 30 min

Booklet	Type of Questions	Number of Questions	Marks
A	MCQ	22	44
B	Open-ended	11-12	36
	TOTAL	33-34	80



Some common questions parents ask when their children start learning Science in Primary 3...

- What assessment books do you recommend?
 - None
- How many practice papers must my child do?
 - Just what our school gives
- What are all the words my child needs to memorise for Science?
 - Understand the concepts. Memorising words does not really help that much.
- Do I need to give my child spelling for Science?
 - No.



Partnership with Parents

How can you help your child?

- Monitor their homework, eventually work towards them taking ownership of their own learning.
- Encourage them
 - ✓ to read Science materials like books, magazines or watch documentaries on Science.
 - ✓ to pose questions and find out more on their own.
 - ✓ to draw MindMaps to sum up their knowledge.
- Get them to observe things around them and link them to the Science concepts that they learn in school.
- **Be encouraging and supportive!**



Thank You



BUKIT TIMAH PRIMARY SCHOOL

STRIVE FOR THE BEST

