

Saint Andrew's Junior School

Science Department

Mission: To develop each Science pupil to be an inquirer, innovator and environmentalist

Vision: Inculcate in pupils a sense of wonder/curiosity and equip them with skills in exploring and discovering such that they aspire to make a positive impact in future



Nurturing the Holistic Thinker

Pedagogy: What IS PTA in our school?

Problem/challenge

Teach/Learn

Apply

5 Es
Engage
Explore
Explain
Elaborate
Evaluate

MTV

Hands ON

ICT

Dept pedagogy remains- only change is addition of "challenge" to the problem

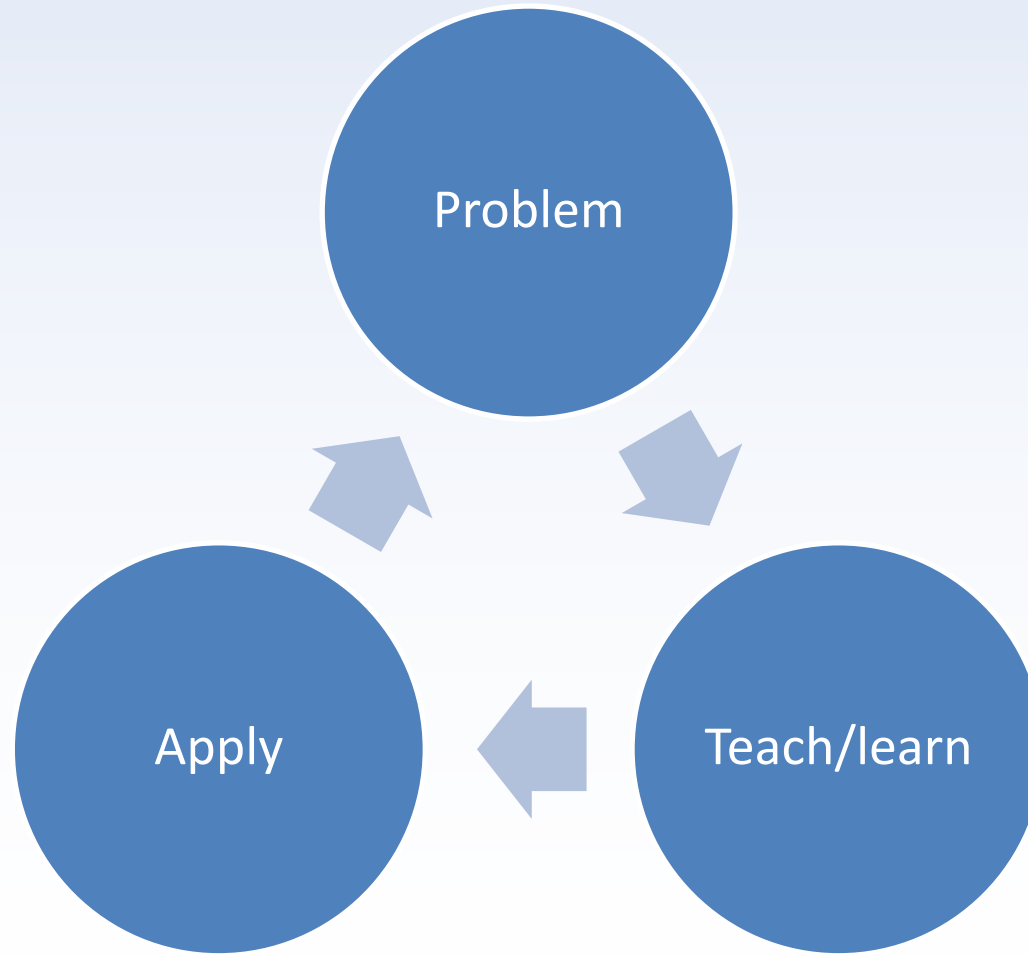
5Es pedagogical approach

- Engage
- Explore
- Explain
- Elaborate
- Evaluate



Science Pedagogical Process Flow

Problem (P), Teach/learn (T), Apply (A)



Developing the Skilled Communicator

Presentations

Group work



- Teaching slides
- Conducting experiments
- Worksheets (Activity, Process Skill, Check-out and Thematic Paper)

In addition....

- SLS (Blended learning)
- Creating PPT slides

Different platforms



Student learning Space
(SLS)
Topic: P3 Magnet



Blended learning (SLS)

Activities

Activate Learning

1. Introduction

Activate Learning

2. Scenarios

Promote Thinking and Discussion

3. Conduct Investigation

Facilitate Demonstration of Learning

4. Apply Understanding

Introduction

Use surprising events presented in the video to help students understand the concept of buoyancy.

Example of

Watch a video and record your observations. Use the “Think-Puzzle-Explore” and “Thinking Together” strategies to discuss the video.

This video clip plays from 00:26 to 00:29



Guiding questions to think about when answering the See-Think-Wonder below.

- What do you notice about ball in the video?
- What could be causing the movement in the ball?
- What will happen if we replace the sand with
 - a) iron filings
 - b) wood shavings
 - c) flour
- What will happen if we replace the ball with
 - a) copper ball
 - b) aluminium ball
 - c) nickel coin

Blended learning (SLS)

Activities

Activate Learning

1. Introduction

Activate Learning

2. Scenarios

Promote Thinking and Discussion

3. Conduct Investigation

Facilitate Demonstration of Learning

4. Apply Understanding

Design your very own sand script toy using the materials you suggested earlier.

Create a model of the toy and test if it can work.

If your model fails, suggest what could be causing the toy to fail and what can be changed in order for it to work.

Q1. FILE SUBMISSION

Tries: 1 [1]

> State if your toy model worked?
Why did it work / fail to work?

Blended learning (SLS)

Activate Learning

1. Introduction

Activate Learning

2. Scenarios

Promote Thinking and Discussion

3. Conduct Investigation

Facilitate Demonstration of Learning

4. Apply Understanding

Q1. FILE SUBMISSION

Tries: 1 [1]

> Take a video of you drawing something (star or any other drawing you prefer) using the set up you created.
Submit the video as your response.

Sample of students' work



Creating PPT slides
Topic: P3 Living and Non living things



Characteristics of living things

1.living things need air,food and water

2.Grow and change

3.Respond to changes

4.Reproduce

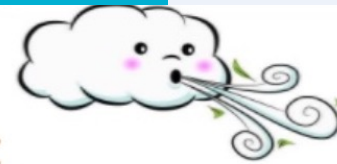
5.They Die

6.Move on its own

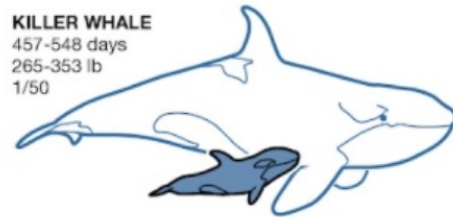
Living things

Have this characteristic:

1. Need air, water and food
2. Grow
3. Respond to changes around them
4. Reproduce



KILLER WHALE
457-548 days
265-353 lb
1/50



Sample of students' work

Interesting Facts about Living Things

- Ants are living things which never sleep.
- Elephants have the largest brain which is 1 percent of the total body mass.
- Unlike fingerprints, the human tongue also has its unique print.



Question

What could be the reason for animals to move from place to place?

A: They look for food, water and shelter.

B: They prefer to stay in different places.

C: They need to escape from other animals from attacking them.

- (1) A and B only
- (2) A and C only
- (3) B and C only
- (4) A, B and C



P3 Checkpoints

Themes	Term 1	Term 2
<p>Diversity</p> <ul style="list-style-type: none">• Living and non-living things• Plants• Animals• Fungi and bacteria• Materials <p>Systems</p> <ul style="list-style-type: none">• Your amazing body as a system• Plants and their parts <p>Interaction</p> <ul style="list-style-type: none">• Magnets and their characteristics• Making Magnets	<p><u>Weighted Topical review (5%)</u></p> <ul style="list-style-type: none">• Living and non-living things	<p><u>Weighted topical review (10%)</u></p> <ul style="list-style-type: none">• Animals• Plants• Fungi and Bacteria• (includes-Living and non-living things)



P3 Checkpoints

Themes	Term 3	Term 4
<p>Diversity</p> <ul style="list-style-type: none"> • Living and non-living things • Plants • Animals • Fungi and bacteria • Materials <p>Systems</p> <ul style="list-style-type: none"> • Your amazing body as a system • Plants and their parts <p>Interaction</p> <ul style="list-style-type: none"> • Magnets and their characteristics • Making Magnets 	<p><u>Weighted Topical review (15%)</u></p> <ul style="list-style-type: none"> • Living and non-living things • Plants • Animals • Fungi and bacteria • Materials • Your amazing body as a system • Plants and their parts 	<p><u>Semestral Assessment (70% of overall)</u></p> <ul style="list-style-type: none"> • Booklet A, 20 MCQs (36 marks) • Booklet B, 10 OEs (34 marks) • Total: 70 marks • Duration: 1h 10 min



Home routines that can support learning of Science

- Linkage of Science to everyday activities or phenomena.
- Guide him in research – information from books / websites
- Ensure that he completes all assignments / corrections.



- Science Notes
- Answering techniques
 - C.E.R

Guide books

- Science PSLE Revision Guide

