



At the end of P3 syllabus teaching, pupils should be able to

- demonstrate knowledge and understanding of scientific facts, concepts and principles
- apply scientific facts and concepts to new situations
- use process skills such as observing, classifying, comparing, measuring using apparatus and equipment and generating possibilities.

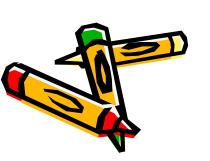
## Science Curriculum and Aim

The Science curriculum seeks to nurture the student as an **INQUIRER**.

# End Goal



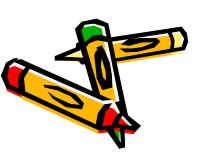
Students to enjoy science and value science as an important tool in helping them explore their natural and physical world.



### Attitude in Science

It is important to have the right attitude in Science learning.

The Science programmes aims to develop pupils' curiosity, teamwork, perseverance, initiative and responsibility



## Vision - JWPS Science student

To develop inquiring learner who is able to use his

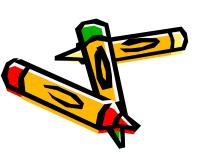
Senses,

Think,



Ask questions and

Reflect critically.



# Inquiry Approach in Science Teaching & Learning



"Trust me, whales are mammals. They're not just 'trying to be difficult.""

# Teacher-centred teaching





### Inquiry Approach in Science Teaching & Learning Asking questions Monitoring learning Investigating and using feedback Inquiry-based learning Developing Discussing multi-modal observations representations and ideas Developing scientific explanations

## P3 Science Topics

### Term 1 (Diversity)

Living and Non-Living Things

Plants and Animals

Fungi and Bacteria

**Term 2 (Diversity)** 

**Materials** 

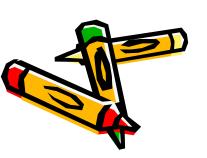
**Term 3 (Cycles and Interactions)** 

Cycle – Life Cycles (Animals and Plants)

Interactions – Magnets (Part 1)

**Term 4 (Interactions)** 

Interactions – Magnets (Part 2)



## Process Skills Taught @ P3

Observing

Comparing and contrasting

Organising data - <u>classifying</u> using charts,

tables, bar graphs and flow charts

Measuring using appropriate apparatus and

equipment (length)

Communicating (verbal and written)

Analysing: identifying the parts of a system,

identify the relationship between parts

Predicting

Generating possibilities

Inferring: drawing inferences or conclusions from observations and data given



#### JURONG WEST PRIMARY SCHOOL



### Primary 3 Process Skills Booklet



#### Activity 1

#### Compare and Contrast



#### Objectives:

- To observe and notice changes in two objects or things
- . To identify the similarities and differences between two or more objects, concepts or processes

In the learning of diversity of living and non-living things, you will be making observations, comparing and contrasting things that you see around you. With these comparisons, you will be able to classify them in different group or make inferences in the grouping.

When stating similarities and differences between two or more objects, concepts and processes, there are a few points to take note:



Point 1

When given two pictures or objects or things, comparison should be only based on **observations.** (Do not compare size and colour)

#### For example:



The cat likes to eat fish.



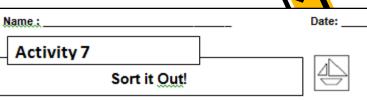
✓ The cat has four legs.



### PERI HA - Science

- Bite-sized exercise after each concept/skills taught to assess students' understanding
- Alternative assessments such as performance tasks, pen and paper test, practical test
- Rubrics for self-assessment and teacher assessment

Name.	i	Date:				
Home	work (1); Chara	acteristics	of Living T	hings		
	What is each of thes ne words in the box		_	•	is alive? Use one of	f
[	reproduces	moves	feeds	reacts	grows	
		know this ho	rse is alive be	cause it	CC+/3	
	I know this bird is a		itis alive becau	to ho		
		ion dis bog	is unverbecuu	3e ite	1 Comments	



#### Objectives:

 To observe and classify living things based on their characteris classification table

#### Task: Helping Linnaeus

classification

Characteristics

of living things

table

- Work individually to help Linnaeus classify the things which he had fo shown below.
  - (a) Look at the picture cards below.
  - (b) Circle the characteristics which indicate whether the thing is a liv non-living.
  - (c) Group the things based on the common characteristics. Underline evidence that support the classification.
  - (d)Understand rubric below for self and teacher evaluation

<b>!</b> •		Rubric - 9	ort It Out!	
		Level 1	Level 2	Lev
		(Just Started)	(Getting There)	(Go
		€	66	6
	Headings in	I need help to state	I am able to state	I am able
	the	headings in the	some of the	all the he

headings in the

correctly.

classificationtable

I am able to identify

the characteristics

the classif

table corre

I am able t

the charac

classification table.

I need help to

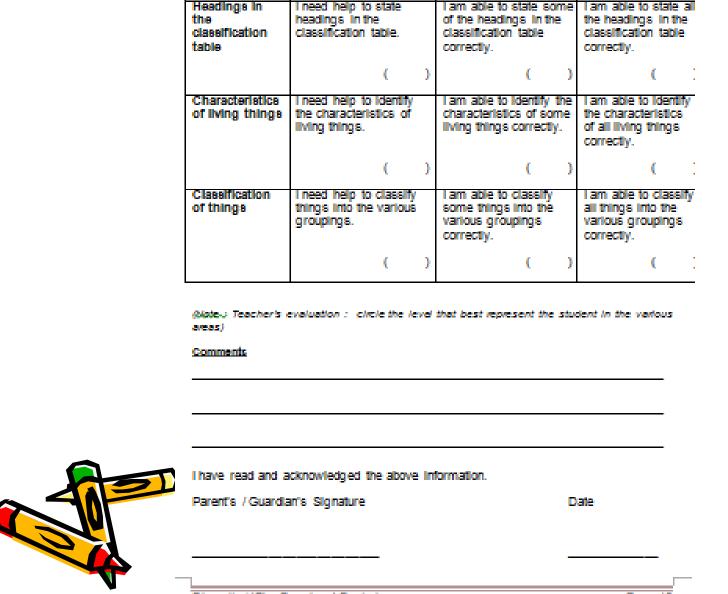
identify the



### My Progress and Reflections

Student's Self-evaluation.; Tick in the bracket of the level you are in for the various areas.

	eve	-	-	Leve	4 9	1	Level 3
	(Just St. ⊖	arted)		(Getting	There)		(Got Iti)
Headings in the classification table	I need help to headings in to classification	12		I am able to of the headin classification correctly.	gs in th		I am able to state all the headings in the classification table correctly.
		(	)		(	)	( :
Characteristics of living things	I need help to the characteri living things.			l am able to characteristic living things	cs of so	me	I am able to Identify the characteristics of all living things correctly.
		(	)		(	)	(
Classification of things	I need help to things into the groupings.			I am able to some things various grou correctly.	into the		I am able to classify all things into the various groupings correctly.
		(	)		(	)	(
(Note:: Teacher's o areas) Comments	evaluation : cir	cle the le	vel	that best repre	sent the	: stud	dent In the various
I have read and a	-	the above	e lini	formation.			ate
- Grand / Coding	and organizate						ur.







Term 1: Term Test (35 marks)

(10 MCQ & 5 OE Qns)

Term 2: SA1 (50 marks)

(15 MCQ & 7 OE Qns)

Term 3: Practical Test

Term 4: SA2 (50 marks)

(15 MCQ & 7 OE Qns)

petails of the format, topics to be tested and dates will be given later)

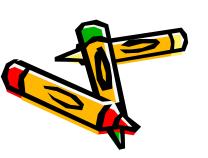
### Science Practical Test

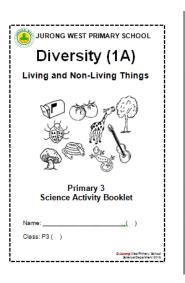
- Will be held in Term 3
- · assess scientific concepts, skills and processes

	Basic skills	Reading an instrument, selecting and using an instrument, measuring, analysing, inferring, communication
	Observation work	Observing & drawing, comparing, classifying
	Illustrative practical	Following instructions, performing an activity to solve a problem
3		

## Science Activity Books

- Starting from 2015, all pupils are not required to purchase Science Activity Book or Workbook.
- Pupils will be given school-based activity booklets (topic-based) which catered for inquiry-based learning.
- The booklets include activities, exercises, reflections and evaluations.
- Topical worksheets will also be provided at the end of each topic

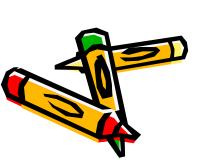




_		
A	tivity 1	
	Things Around Us	y
Оъ	wch/wwc	portale
	To observe a variety of living and non-living things To understand why classification is necessary  To understand.	
Pa	rtd.; Story of a Solentict - Carl Linnaeuc	a s
	Carl Linnaeus (pronounced as Lin-nay-us)	-
	was born in Sweden. He loved nature deeply. He was with a sense of wonder at the great diversity of things	
	One of his projects was to try to group the plants in higher. Later, he realised that he needed to come up vigroup not only the plants but other liking and non-liking the graden too. As an eager scientist who leved to exp different parts of the world to find and group plants are not provided to the properties of the world to find and group plants are aroused things. He would not so sked inventant dues	with ways things t lone, he w and anima
	"How do I start?" or "What do I look for?"	
l.	What do you think are the Irving things menboned in the story	a
2.	How do you think we can group the things around us?	

## Helping Your Child in Science

- Spirit of scientific inquiry Ask more questions (Why? How? What happen?)
- Read more Science books or magazines (eg Science Spy, Young Scientists)
- Practise (attempt more questions)
- Relate concepts to real life examples



### NEW!!!

- Home Activity with Parents
- Self-directed Learning

## Home Activity with Parents





#### **Home Activity with Parent**

Spores Print



Objective: To find out more about parts of a mushroom

Materials: mushroom, a sheet of white paper, sticky tape, Jam Jar

or similar container

Mushrooms produce millions of spores, which are equivalent to the seeds of plants but without the massive food reserves. Spores are made on the plate-like gills underneath the cap of a mushroom. When they are mature, they fall off the gills and are blown about by the wind. Spores are so small that you normally need a microscope to see them but with a spore print, thousands of spores are all seen together.



## Self-directed Learning







Penicillin - made from the | Fungus - used to make | Athlete's foot - a blue mould,

cheese.

fungal disease that

### More information and instructions will be provided at a later date

Most fungi reproduce through fruiting bodies that release spores. The spores are microscopic bodies that float through the air. When the spores land on food, they start to grow and eat the food



#### Self Directed Learning

MCOnline Assigned Lesson: "SDL – P3 Diversity – Fungi and Bacteria"

Access the lesson in MCOnline, watch the tutorials and answer complete the tasks below.)

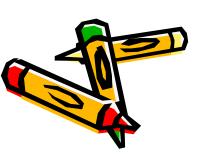


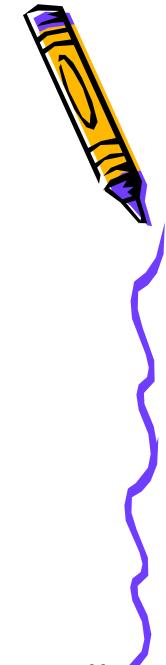
#### Helpful Science Websites/Resources

School LMS: <a href="https://www.mconline.sg">https://www.mconline.sg</a>

http://www.bbc.co.uk/schools/websites/4\_11/site/science.shtml

http://sciberdiver.wikispaces.com/





## THANK YOU

