Primary 3 Science
Science Syllabus and Assessment
2015

Meet The Parents Session
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 and comparing.
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.
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

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

Student-centred teaching
Inquiry Approach in Science Teaching & Learning

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

- teaching students more than just the basic concepts of science
- students will be equipped with the skills to be able to use scientific knowledge to identify questions, and to draw evidence-based conclusions in order to understand and make decisions about the natural world and the changes made to it through human activity.

- This includes providing students with opportunities to:
  - ask questions about knowledge and issues that relate to their daily lives, society and environment,
  - be actively engaged investigative experiments that allow them to develop and apply their scientific skills and lastly,
  - to develop attitudes and values that are essential to the practice of science.

- some of the strategies for conducting inquiry-based learning and teaching in JWPS includes Concept Cartoon, Concept Mapping, Cooperating Learning, Games, Field Trip, Investigation, Problem Solving, Projects, Questioning, Role Play.
P3 Standard 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 - classifying 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
Formulating hypothesis
Predicting
Generating possibilities
Inferring : drawing inferences or conclusions from observations and data given
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

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**Activity 7**

**Objectives:**
- To observe and classify living things based on their characters classification table

**Task: Helping Linnaeus**

1. Work individually to help Linnaeus classify the things which he had to shown below.

   (a) Look at the picture cards below.
   (b) **Circle** the characteristics which indicate whether the thing is a live 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.

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**Rubric - Sort It Out!**

<table>
<thead>
<tr>
<th>Level 1 (Just Started)</th>
<th>Level 2 (Getting There)</th>
<th>Level 3 (Got It)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headings in the classification table</td>
<td>I need help to state the headings in the classification table.</td>
<td>I am able to state some of the headings in the classification table correctly.</td>
</tr>
<tr>
<td>Characteristics of living things</td>
<td>I need help to identify the</td>
<td>I am able to identify the characteristics</td>
</tr>
</tbody>
</table>

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**Homework (1): Characteristics of Living Things**

1. What is each of these living things doing that tells you that it is alive? Use one of the words in the box below to complete each sentence.

   - reproduces
   - moves
   - feeds
   - reacts
   - grows

   I know this horse is alive because it

   I know this bird is alive because it

   I know this boy is alive because he
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)

Details 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

<table>
<thead>
<tr>
<th>Basic skills</th>
<th>Reading an instrument, selecting and using an instrument, measuring, analysing, inferring, communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation work</td>
<td>Observing &amp; drawing, comparing, classifying</td>
</tr>
<tr>
<td>Illustrative practical</td>
<td>Following instructions, performing an activity to solve a problem</td>
</tr>
</tbody>
</table>
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.
Learning Science in Class

- Attitude
- Attendance
- Assignment
Helping Children in Science

• Spirit of scientific inquiry – Ask more questions (Why? How? What happen?)
• Read more Science books or magazines (e.g. Science Spy, Young Scientists)
• Practise
• Relate concepts to real life examples
Helpful Science Websites/Resources

http://www.lead.com.sg

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

http://sciberdiver.wikispaces.com/