Primary 6
Science

An Overview : Big Ideas in the Primary Science Syllabus

Big Ideas (Themes)	Key Inquiry Questions
Diversity	• What is the environment made up of? • Why is it important to maintain diversity? • How do we go about understanding the diverse range of living and non-living things?
Systems	• What are different parts of a system? • How do parts of a system or different systems interact together to perform a function?
Interactions	• How does Man interact with the surroundings? • What are the consequences of Man's interactions with his surroundings?
Cycles	• What are the cycles in our everyday life? • How are cycles important to life?
Energy	• How does energy affect Man and his surroundings? • Why is it important to conserve energy?

Overview of the Primary Science Syllabus

Themes	Lower Block (P3 & P4)	Upper Block (P5 & P6)
Diversity	• Diversity of living and non-living things • Diversity of materials	
Cycles	• Cycles of Plants and Animals (Life Cycles) • Cycles in matter and water (Matter)	• Cycles in plants and animals (Reproduction) • Cycles in matter and water (Water)
Systems	• Plant system (Plant parts and functions) • Human system (Digestive system)	• Plant /Human system (Respiratory and circulatory systems) • Cell system • Electrical system
Interactions	• Interaction of forces (magnets)	• Interaction of forces (Frictional, gravitational forces, force in springs) • Interaction within the environment
Energy	• Energy forms and uses (light and heat)	• Energy forms and uses (photosynthesis) • Energy conversion

Components of lessons

- Theory : Acquisition of basic scientific terms and concepts
- Practical : Carry out experiments in the science laboratory (Term 1 and Term 2)
- Science Workbooks required at P6 (Interactions/Energy)
- Supplementary / Process Skills Worksheets
- Practice Papers
- PSLE Booklets

NOTE : Files will be returned for parents' checking and signature upon completion.

Supplementary Lessons

- Commence in Term 1
- June and Sept Holidays – supplementary classes (schedule will be given at a later date)

Focus for supplementary lessons:

- Reteach concepts taught in class.
- Use diagnostic approach to reinforce concepts.
- Focused on areas that pupils are weak at.
- Revision (P3 – P6 topics)
- Use PSLE booklet to expose pupils to a variety of authentic PSLE questions.

Science Assessment

The P6 pupils will sit for the followings:

Conditioning Exercise (Term 1-ungraded)	Mid-Year Examination (MYE)	Preliminary Examination

Standard Science Format

Booklet A

- 28 Multiple Choice Questions (MCQ)
- 4 options given, choose the correct answer
- Total : 28 x 2marks = 56 marks

Standard Science Format

Booklet B

- 12 Open-Ended Questions (OE)
- May consist up to 4 parts e.g. (a), (b), (c) ,(d)
- Each part could be 1 mark or 2 marks
- Each question could be up to 5 marks
- Total : 44 marks

Foundation Science Format

Booklet A

- 18 Multiple Choice Questions (MCQ)
- 3 options given, choose the correct answer
- Total : 18 x 2marks = 36 marks

Foundation Science Format

Booklet B

- Structured and Open-ended questions
- May consist up to 4 parts e.g. (a), (b), (c) ,(d)
- Structured questions: 2 to 3 marks (14 marks)
- Open-ended questions: 2 to 4 marks (20 marks)
- Total : 34 marks

How do we guide your child in constructing scientific explanations?

The Science department adopted the Claim-Evidence-Reasoning (CER) Framework (developed by McNeill and Krajick) to guide pupils when constructing science explanations.

CER stands for:

Claim

Evidence

Reasoning

Why use CER answering technique?

Three key areas during constructing science explanations:

- Identify and use **E**vidence.

- Providing **R**easoning for why their evidence supports their **C**laim.

Components

- Make a ***Claim*** about the problem.
- Provide ***Evidence*** for the claim.
- Provide scientific ***Reasoning*** that links the evidence to the claim.

What is **C**laims, **E**vidence and **R**easoning?

Claim :	A *conclusion* that *answers* the original *question*. [Usually one sentence]
Evidence ***How do you know that?*** :	Scientific *data* that supports the claim that must be appropriate and sufficient. - Can come from something you observe from the question e.g. data in the form of graphs, tables, observations from diagrams etc.
Reasoning **What's the link?** :	Scientific concept that links the claim and evidence. [Usually many sentences in length] - Shows why the data count as evidence to support the claim, using appropriate scientific principles and terms.

C r Lady
Si ol n Virtue

Q & A Session