## **Course Outline**

Department :	Bilingual	Name of Sub	ject :	Science		Code	: 15201
Teacher's name :	Miss Christin	e Marie Z. Rañoa / Mr. Mel (	C. Pano	onot			
☑ Primary 5		□ Secondary			1 <sup>st</sup> - 2 <sup>nd</sup> Semester /	2014	
Subject :	ject	☑ Optional Subject	🗆 Deve	elopment A	ctivities for Students		□ Others

#### 1) Course Description

Science in English is a course expected to cover many basic subjects in Science through English medium. The subjects covered in the course developed for Primary 5 include 7 major topics and 36 minor topics.

This course aims to arouse curiosity, develop understanding, develop thinking, and develop ability to apply knowledge in everyday situations, build up an up-to-date knowledge base, and develop examination skills. Development of these skills lead to a scientific attitude – logical thinking than accepting things at face value.

- 2) Grade-Level Indicators (The Basic Education Core Curriculum)
  - 1. Show concern for the need to conserve and to have proper use and handling of electricity.
  - 2. Examine some simple machines to determine their characteristics and uses.
  - 3. Understand that the Earth's position from the Sun is one of the major reasons why life is possible on this planet.
  - 4. Identify the different parts of a typical plant cell and animal cell and relate the parts to the functions.
  - 5. State the processes in the sexual reproduction of flowering plants.
  - 6. Show an understanding that living things reproduce to ensure that their species live on and that their traits are passed on from parents to offspring.
  - 7. Recognize that energy is required to make things work or move.

# 3) Learning Objectives (1<sup>st</sup> Semester)

Indicators of Semester	In accordance with government curriculum
<ol> <li>Show the concern for the need to conserve and to have proper use and handling of electricity.</li> </ol>	
2. Examine some simple machines to determine their characteristics and uses.	
3. Understand that the Earth's position from the sun is one of the major reasons why life is possible on this planet.	
<ol> <li>Identify the different parts of a typical plant cell and animal cell and relate the parts to the functions.</li> </ol>	

## 4) Analyze the course description to be the contents for teaching. ( 1<sup>st</sup> Semester )

Contents		Units of learning / Amounts of	Teaching	How to Ev	aluate	Maximum
(Strand)/	Indicators	Deriode	Materials	Evaluations	Tools	marks
Standards		renous				
	1. Show the	Unit 1 : ELECTRICITY (14	1. video clips	1. questionnaires	1.	30
	concern for the	Periods)	2. textbook	2. do the test	worksheets	
	need to	<ul> <li>Sources of electricity</li> </ul>	3. work sheets	3. recitation	2. practical	
	conserve and	- Electric circuits	4. board game		test	
	to have proper	- Circuit diagrams	activities		3. questions	
	use and	<ul> <li>Factors affecting the</li> </ul>	5. pictures			
	handling of	amount of current flowing				
	electricity.	in a circuit				

	- Electrical Conductors and				
	Insulators				
	- Proper Use of Electricity				
	- Conserving electricity				
 2. Examine	Unit 2 : Force and Simple	1. video clips	1. questionnaires	1. exam	20
some simple	Machines (16 Periods)	2. textbook	2. do the test		
machines to	- What is force?	3. work sheets	3. recitation		
determine their	- Simple Machines	4. board game			
characteristics	- Levers	activities			
and uses.	- Pulleys	5. pictures			
	- Inclined Planes				
	- Screw				
	- Wheel and Axle				
	- Gears				
 3. Understand	Unit 3 : The solar system ( 8	1. video clips	1. questionnaires	1.	30
that the Earth's	Periods)	2. textbook	2. do the test	worksheets	
position from	- The Sun	3. work sheets	3. recitation	2. practical	
the sun is one	- The Earth	4. board game		test	
of the major	- The Moon	activities		3. questions	
reasons why	- Artificial Satellites	5. pictures			
life is possible					
on this planet.					
4. Identify the	Unit 4 : The Unit of Life ( 8	1. video clips	1. questionnaires	1. exam	20

different parts	Periods)	2. textbook	2. do the test	
of a typical	- Cells	3. work sheets	3. recitation	
plant cell and	- Plant Cells	4. board game		
animal cell and	- Animal Cells	activities		
relate the parts	- Cell Division	5. pictures		
to the				
functions.				

## 5) Contents of subjects

## 1<sup>st</sup> Semester

Time Duration	Subject Contents
	Electricity
	- Where Does Electricity Come From?
	- Electric Circuits
	- Circuit Diagrams
	- Factors Affecting the Amount of Current Flowing in a Circuit
	- Electrical Conductors and Insulators
Beginning of the session – Mid-term	- Proper Use of Electricity
	- Conserving electricity
	Force and Simple Machines
	What is force?
	- Simple Machines
	- Levers

	- Pulleys
	- Inclined Planes
	- Screw
	- Wheel and Axle
	- Gears
	The Solar System
	- The Sun
	- The Earth
	- The Moon
	- Artificial Satellites
Post – Midterm – Final	The Unit of Life
	- Cells
	- Plant Cells
	- Animal Cells
	- Cell Division

### 6) Evaluation

Average marks for evaluation

Authentic Assessment: Written / Practical Exam = ...60.....: ...40......

(Depend on each Subject)

### **Evaluation of Learning Objectives**

Semester	Learning Objectives (Items)
1	1, 2, 3, 4

### 7) Details of Evaluation

## 1<sup>st</sup> Semester/2014

## Pre-test marks: 30 Marks (Authentic Assessment)

		Maximum
Learning Objectives (Items)	Criteria Followed for Assessment	marks
	- Draw the Symbols in Circuit Diagrams	
1	- Label the Microscope	15
2	- Enumerate Proper Use of Electricity and Ways to Conserve Electricity	15

#### Mid-term marks: 20 Marks (Written/Practical Exam)

		Maximum
Learning Objectives (Items)	Criteria Followed for Assessment	marks
1	- Choose & circle the correct answer	10
2	- Identification	10

## Post-Test marks :30 Marks (Authentic Assessment)

		Maximum
Learning Objectives (Items)	Criteria Followed for Assessment	marks
3, 4	- Identify the phase of the moon	
	- Fill in the blanks	30

### Portfolio : Marks

Learning Objectives (Items)	Criteria Followed for Assessment	

## Final marks : 20 Marks (Written/Practical Exam)

		Maximum
Learning Objectives (Items)	Criteria Followed for Assessment	marks
1, 2, 3, 4	- Multiple choice	20
	- Fill in the blanks	

## 2<sup>nd</sup> Semester/2014

## Learning Objectives ( 2<sup>nd</sup> Semester )

Indicators of Semester	In accordance with government curriculum
5. State the processes in the sexual reproduction of flowering plants.	
<ol> <li>Show an understanding that living things reproduce to ensure that their species live on and that their traits are passed on from parents to offspring.</li> </ol>	
7. Recognize that energy is required to make things work or move.	

## Analyze the course description to be the contents for teaching. ( 2<sup>nd</sup> Semester )

Contents		Units of learning / Amounts of	Teaching	How to Ev	aluate	Maximum
(Strand)/	Indicators	Periode	Materials	Evaluations	Tools	marks
Standards		T enous				
	5. State the	Unit 5 : Reproduction in Plants (	1. video clips	1. questionnaires	1.	30
	processes in	6 Periods )	2. textbook	2. do the test	worksheets	
	the sexual	- Sexual Reproduction	3. work sheets	3. recitation	2. practical	
	reproduction of	in Flowering Plants	4. board game		test	
	flowering	- Parts of a Flower	activities		3. questions	
	plants.	- Asexual Reproduction	5. pictures			
	6. Show an	Unit 6 : Reproduction in Animals	1. video clips	1. questionnaires	1. exam	20
	understanding	( 10 Periods)	2. textbook	2. do the test		
	that living	- Why Do Living Things	3. work sheets	3. recitation		

things	Reproduce?	4. board game			
reproduce to	<ul> <li>Ways of Reproduction</li> </ul>	activities			
ensure that	- Asexual Reproduction	5. pictures			
their species	in Animals				
live on and	- Sexual Reproduction				
that their traits	in Animal				
are passed on	- Life Cycles of Animals				
from parents to					
offspring.					
 7. Recognize	Unit 7 : The Web of Life ( 8	1. video clips	1. questionnaires	1.	30
that energy is	Periods )	2. textbook	2. do the test	worksheets	
required to	- Introduction	3. work sheets	3. recitation	2. practical	
make things	- Food Chains	4. board game		test	
work or move.	- Food Web	activities		3. questions	
	- Decomposers	5. pictures			

## Contents of subjects

## 2<sup>nd</sup> Semester

Time Duration	Subject Contents
	Reproduction in Plants
	- Sexual Reproduction in Flowering Plants
	- Parts of a Flower
	- Asexual Reproduction

	Reproduction in Animals
	- Why Do Living Things Reproduce?
	- Ways of Reproduction
Beginning of the session – Mid-term	- Asexual Reproduction in Animals
	- Sexual Reproduction in Animal
	- Life Cycles of Animals
	- Heredity
	The Web of Life
	- Introduction
Post – Midterm – Final	- Food Chains
	- Food Web
	- Decomposers

#### Evaluation

Average marks for evaluation

Authentic Assessment: Written / Practical Exam = ...60.....: :...40......

(Depend on each Subject)

## **Evaluation of Learning Objectives**

Semester	Learning Objectives (Items)
2	5, 6, 7

### **Details of Evaluation**

		Maximum
Learning Objectives (Items)	Criteria Followed for Assessment	marks
	- Label the Parts of the Male and Female Parts of a Flower	
5		15
6	- Enumerate Life Cycles of Animals	15

### Pre-test marks: 30 Marks (Authentic Assessment)

### Mid-term marks : 20 Marks (Written/Practical Exam)

		Maximum
Learning Objectives (Items)	Criteria Followed for Assessment	marks
	- Multiple Choice	
5, 6	- Fill in the blanks	20

#### Post-Test marks : 30 Marks (Authentic Assessment)

		Maximum
Learning Objectives (Items)	Criteria Followed for Assessment	marks
	- Diagram of Food Web	15
7	- Identification	15

#### Portfolio : ..... Marks

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks

#### Final marks : 20 Marks (Written/Practical Exam)

		Maximum
Learning Objectives (Items)	Criteria Followed for Assessment	marks
7	- Multiple Choice	20

Reference book and worksheets:

Students Science textbook: Sumitra Siromani (2011, 2012, 2013, 2014). *My World of Science Primary 5.* India: Orient Blackswan Private Limited