

Course Outline

Department: Bilingual Name of Subject : Biology Code : ๓ 31283

Teacher's name : M. Prinya Prinyaphol

Level ;

Primary .../..... Secondary 4 1st Semester / 2014

Subject :

Main Subject Optional Subject Development Activities for Students Others

1) Course Description (1st Semester)

This course begins with the ecology in biotic, abiotic factors , trophic levels and energy flow . It discusses the biodiversity in to the kingdoms. This provides students discussion about World issues for the example global warming, climate change . This lesson will help them understand electric current through illustrations and making their own electrical circuits. Lastly, the lesson on machines will enhance their appreciation on the work of machines in our daily life situations.

2) Learning Objectives (1st Semester)

Indicators of Semester	In accordance with government curriculum
1. Recognize the different types of cell organization.	SC 1.1 /1
2. Describe the forms of organelles and list their function.	SC 1.1 /2
3. Describe transportation in cell.	SC 1.1 /2
4. Explain the functions of the three system in transportation of humans.	SC 1.1 / 2
5. Describe the concept of an ecosystem, its components and groupings of biotic components.	SC 2.1 / 1

6. Construct food chain and food webs.	SC 2.1 / 2
7. Classify living things under five kingdoms and their characteristics of various kingdoms.	SC 2.1 / 3

3) Contents of subjects

1st Semester

Time Duration	Subject Contents
Beginning of the session – Mid-term	Unit 1 Cell and Organell - The cell Theory - Types of cell organization - Cell Structure and Function - Cell cycle and cell division Unit 2 Cell Transportation - Cell membrane - Cell transport
Post – Midterm – Final	Unit 3 Transportation in Human - Circulatory system - Respiration - Excretion Unit 4 Ecology - Component of an Ecosystem - Food chain

	<ul style="list-style-type: none"> - Food web - Biogiochemical cycle
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4) Evaluation

Average marks for evaluation

Authentic Assessment: Written / Practical Exam = 60 : 40

Evaluation of Learning Objectives

Semester	Learning Objectives (Items)
1	Item 1 - 7

5) Details of Evaluation

1st Semester/2014

Pre-test marks: 30 Marks (Authentic Assessment)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
1	Homework, Spelling, and Quiz	10
2	Presentation, Homework, Spelling, and Quiz	10
3	Homework, Spelling, and Quiz	10

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

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
4	- Multiple Choice, Fill in the Blanks, Classification, and Essay, Illustration	20

Post-Test marks : 30 Marks (Authentic Assessment)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
5	Homework, Spelling, and Quiz	10
6	Presentation, Homework, Spelling, and Quiz	10
7	Homework, Spelling, and Quiz	10

Portfolio : Marks

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks

Final marks : 20 Marks (Written/Practical Exam)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
7	Multiple Choice, Fill in the Blanks, Classification, and Essay, Illustration	20

Course Outline

Department: Bilingual Name of Subject : Biology Code : ๓ 31284

Teacher's name : M. Prinya Prinyaphol

Level ;

Primary .../..... Secondary 4 2st Semester / 2014

Subject :

Main Subject Optional Subject Development Activities for Students Others

1) Course Description (2nd Semester)

This course begins with Earth, plate tectonics, volcanoes, Earthquake, evidence about Earth's past , Earth's minerals and rocks. This lesson will help them understand electric current through illustrations and making their own electrical circuits. Lastly, the lesson on machines will enhance their appreciation on the work of machines in our daily life situations.

2) Learning Objectives (2nd Semester)

Indicators of Semester	Accordance with governmental Curriculums
1. Define and describe Earth science as a general field with many branches.	SC 6.1/2
2. Describe the field of geology as a branch of Earth science that deals with the solid part of the Earth.	SC 6.1/1
3. Compare and describe each of Earth's interior.	SC 6.1/1

4. Define lithosphere, oceanic and continental crust.	SC 6.1/1
5. Be able to explain the continental drift hypothesis.	SC 6.1/3
6. Describe the causes of Earthquake and volcano formed	SC 6.1/3
7. Explain how fossil and relative ages of rock	SC 6.1/3
8. Identify the oldest and youngest formation based on a geological cross - section	SC 6.1/2

3) Contents of subjects

2nd Semester

Time Duration	Subject Contents
Beginning of the session – Mid-term	Unit 1 What is the Earth science <ul style="list-style-type: none"> - What is the Earth science - The branch of Earth Science - How the Earth was bone Unit 2 Plate tectonic theory <ul style="list-style-type: none"> - The evidence Wegener used to support his continental drift idea - Boundary of plate - Three type of plate boundaries
Post – Midterm – Final	Unit 3 Earthquake and Volcanos <ul style="list-style-type: none"> - Earthquake - Volcanos Unit 4 Fossil and Relative ages of Rock <ul style="list-style-type: none"> - What are the fossils? - How are the fossils formed?

	<ul style="list-style-type: none"> - The principle of original Horizontality - Unconformity in Rock layer
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4) Evaluation

Average marks for evaluation

Authentic Assessment: Written / Practical Exam = 60 : 40

Evaluation of Learning Objectives

Semester	Learning Objectives (Items)
2	Item 1- 8

5) Details of Evaluation

2nd Semester/2014

Pre-test marks: 30 Marks (Authentic Assessment)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
1	Homework, Spelling, and Quiz	10
2	Presentation, Homework, Spelling, and Quiz	10
3	Homework, Spelling, and Quiz	10

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

Learning Objectives (Items)	Criteria Followed for Assessment	Maximummarks
4	- Multiple Choice, Fill in the Blanks, Classification, and Essay, Illustration..	20

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

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
5	Homework, Spelling, and Quiz	10
6	Presentation, Homework, Spelling, and Quiz	10
7	Homework, Spelling, and Quiz	10

Portfolio : Marks

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
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Final marks : 20 Marks (Written/Practical Exam)

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
8	- Multiple Choice, Fill in the Blanks, Classification, and Essay, Illustration..	20