Section : Sampaguita
Everlasting
Hyacinth

Date: January 15, 2018

Lesson Plan in Science

Grade 8

I. Objectives:

1. **Content Standard:**
   - Demonstrate an understanding of the concept of a species
   - Demonstrate an understanding of the species as being classified into a hierarchical taxonomic system

2. **Performance standard:**
   - Report on the activities that communities engage in to protect and conserve endangered and economically important species.

3. **Learning Competencies/Objectives:**
   - Explain the concept of a species. **(S8LT-IVg-19)**
   - Classify organism using the hierarchical taxonomic system.

     (S8LT-IVg-20)

     Explain the advantage of high biodiversity in maintaining the stability of an ecosystem. **(S8LT-IVg-21)**

4. **Specific objectives:** The learners will be able to…
   - Discuss the 3 domains.
   - Identify the characteristics of each domain
   - Differentiate the three domains.

II. Subject Matter

1. Topic : Biodiversity (3 Domains and Introduction for Kingdoms)
2. Reference : Learner's Module page 226-227
3. Materials: Manila Paper, Visual aid, pentel pen, scotchtape

III. Learning Task

1. Review

- What are the rules in writing a scientific name based on binomial nomenclature?
- Why was Latin used in giving scientific name?

2. Motivation

- Activity: "Act Me Out"
  - The class will be divided into 5 groups.
  - Each group must have a one representative.
  - The representative will pick a word and let the remaining members guess the word by acting it in front of the class.
  - The group who will perform it for the shortest time will be the winner.

3. Lesson Proper

3.1 **Activity** " Forget Me Not "

- The class will be divided into 5 groups.
- Each group will be task to recall their information about prokaryotes and eukaryotes.
- The group will create a table about the characteristics of prokaryotes and eukaryotes, and how it differs from each other.
- They will be given 5-10 minutes to perform the activity.

3.2 Analysis

- Discuss what are the 3 domains
- Describe the characteristics of the 3 domains
- Identify the kingdoms under each domain.

Domain	Bacteria	Archaea	Eukarya			
Kingdom	Eubacteria	Archaebacteria	Protista	Fungi	Plantae	Animalia
Cell Type: Prokaryotic or Eukaryotic?	Prokaryotic	Prokaryotic	Eukaryotic	Eukaryotic	Eukaryotic	Eukaryotic
Cell Structures: Cell Wall or Chloroplast?	Cell Walls with peptidoglycan	Cell Walls without peptidoglycan	Cell walls of cellulose in some; some have chloroplasts	Cell Walls of chitin	Cell Walls of cellulose; chloroplasts	No cell walls or chloroplasts
Number of Cells: Unicellular or Multicellular?	Unicellular	Unicellular	Most Unicellular; some colonial; some multicellular	Most multicellular; some unicellular	Most multicellular; some green algae unicellular	Multicellular
Mode of Nutrition: Heterotroph or Autotroph?	Heterotroph or Autotroph	Heterotroph or Autotroph	Heterotroph or Autotroph	Heterotroph	Autotroph	Heterotroph
Examples: Type of organism?	*Streptococcus, Escherichia coli*	Methanogens, halophiles	*Amoeba, Paramecium,* Slime Molds, Giant Kelp	Mushrooms, Yeast	Mosses, Ferns, Flowering Plants	Sponges, Worms, Insects, Fishes, Mammals

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3.13 Abstraction

The teacher will ask the following question to the students:

- What are the 3 domains?
- How do the domain Eukarya differ from domain Archae?
- Does domain Archae is similar from Domain Bacteria? Why?

3.14 Application

Using the data they have on the Activity 1 (Forget Me not) the group will now create a Venn Diagram about the characteristics of the 3 domains.

IV. Assessment

½ sheet of paper

Direction: Choose the correct domain that best fit the given characteristics.

Eukarya	Archae	Bacteria

1. Cell type is prokaryotic
2. Cell walls is made up of peptidoglycan.
3. They are both heterotroph and autotroph
4. Cell walls is without peptidoglycan
5. They are unicellular
6. They are multicellular
7. Inhabit at extreme environment
8. Types of organism are methanogens and halophiles
9. Protista, Fungi, Plantae and Animalia belong to this domain.
10. Types of organisms are streptococcus, Escherichia coli.

V. Assignment

Advance study the different kingdoms and their characteristics.

VI. Reflection

A. No. of learners who earned 80% on the formative assessment	
B. No. of learners who require additional activities for remediation.	
C. Did the remedial work? No. of learners who have caught up with the lesson.	

D. No. of learners who continue to require remediation.	
E. Which of my teaching strategies work well?	
F. What difficulties did I encounter which my principal or supervisor can help me solve?	
G. What innovation or localized materials did I use/ discover which I wish to share with other teachers.	