**EMERALD ROYAL INTERNATIONAL SCHOOL, MPAPE ABUJA**

**LESSON PLAN AND NOTE FOR WEEK 2 ENDING 22ND SEPTEMBER, 2023**

**TERM: FIRST**

**WEEK**: **1**

**DATE** : **18TH - 22ND SEPTEMBER, 2023.**

**SUBJECT:** **BIOLOGY**

**CLASS : SS 1**

**TOPIC :**  **CLASSIFICATION OF LIVING THING**

**SUB - TOPIC: 1**. **kingdom Monera.**

1. **Characteristics of kingdom Monera.**
2. **Examples of kingdom Monera.**

**PERIOD : 7th**

**TIME : 12: 30 - 1:00**

**DURATION : 40 minutes**

**AVERAGE AGE : 15 years**

**SEX:** **mixed**

**LEARNING OBJECTIVES:** by the end of the lesson,the students, should be able to;

1. State the system of classification of living
2. State the characteristics of kingdom Monera.
3. Give examples of the kingdom Monera.

**RATIONALE:** the students should understand the classification living things.

**PREVIOUS KNOWLEDGE:** The students can state examples of living things.

**INSTRUCTIONAL MATERIALS:** chart showing the classification of living things.

**Reference Material:** Essential Biology foe Senior Secondary School by M.C. Michael.

**LESSON DEVELOPMENT**

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| **STAGES** | **TEACHER’S ACTIVITIES** | **STUDENTS’**  **ACTIVITIES** | **LEARNING POINT** |
| **INTRODUCTION** | The teacher introduces the lesson by reviewing the previous lesson. | The students were attentive. | To arouse the students interest. |
| **PRESENTATION**  **STEP 1** | The teacher states the classes of living things. | The students pay attention. | To keep them focus. |
| **STEP 2** | The teacher asks the students to state the characteristics of kingdom Monera. | The students state the characteristics of kingdom Monera. | To encourage critical thinking. |
| **STEP 3** | The teacher gives examples of the kingdom Monera. | The students were active. | To keep them focus. |
| **BOARD SUMMARY** | **Classification of Living Things (Introduction): Biology****Classification of living things deals with placing together in categories those living things that resemble each other. It involves placing living things into groups that have certain features in common which distinguish them from other groups. The system of classification of living things used today is based on that introduced by a Swiss scientist called can von.** **classifications** of living things deals with placing together in categories those living things that resemble each other. It involves placing living things into groups that have certain features in common which distinguish them from other groups. The system of classification of living things used today is based on that introduced by a Swiss scientist called Car Von Linne (1707 – 1778). His name was latinized to Carolus Linnaeus. He published the classification of plants in 1753 and that of the animals in 1758. Living Things are first split into kingdoms. The kingdoms are further split into a large number of smaller groups called Phyla (singular, Phylum) for animals and divisions for plants. All the members of a phylum or division have certain features in common. Each phylum or division is broken down into classes. Each class is further broken down into orders, orders into families, families into genera (singular genus), genera into species. The arrangement of living things in this hierarchy is summarised from the highest to the lowest level is summarised in figure 2.1 There are seven major groups used in classification of living things. These are: i. **Kingdom** **ii. Phylum** **iii. Class** **iv. Order** **v. Family** **vi. Genus** **vii. Species**  The basic unit of classification of living things is the species. Species is the smallest unit containing members which have the largest number of features in common and usually interbred among themselves but a member of a species cannot interbreed with a member of another species. For example, all human beings belong to one species and all monkeys belong to a different species. So both human beings and monkeys cannot interbreed. **Binomial System of Nomenclature** Carolus Linnaeus also introduced a system of naming living things which is popularly used by biologists today. This system is called binomial system of nomenclature. In this system, each organism or living thing is given two names. Hence, the term binomial nomenclature. The first name is the generic name (common to the genus) and it always begins with a capital letter. The second name is the specific name which begins with a small letter. These scientific names are written in italics or are underlined. Examples of scientific name of some organisms are given below; **i. Man. : Homo sapiens** **ii. Lion : Panthera Leo** **iii. Maize : Zea mays** **iv. Rat : Rattus rattus** **v. Dog : Canis domestica** **KINGDOMS** Carolus Linnaeus classified all living organisms into two major kingdoms namely plant kingdom and animal kingdom. Under this arrangement, lots of one-celled organisms could not fit in properly. Many biologists then decided to place all living things into five kingdoms. These kingdoms are; **i. Monera** **ii. Protista** **iii. Fungi** **iv. Plantae** **v. Animalia**  In the classification of living things, virus specifically could not fit into any of the five kingdoms. As s result of this, it has to be treated separately.  **Virius**: This is a microscopic organism which cannot be seen by an ordinary microscope but an electronic microscope. It doesn’t have a cell structure but is just made up of a coiled strand of nucleic acid i.e Ribonucleic acid (RNA) or deoxyribonuclei acid (DNA) enclosed within a protein coat. Virus is seen as being on the borderline between living and non-living things. When outside the living cells, it forms a crystal and becomes non-living but within the cell, it replicates (produces) and becomes living organism.  The diagram below shows the structure of a virus:  IMG_257  **Characteristics Of Virus** i. Virus is microscopic in nature ii. It possess either RNA or DNA iii. It cannot reproduce by binary fission. iv. It does not have structures used in the synthesis of protein. v. It doesn’t respire, feed, excrete, etc vi. It is responsible for the causes of many chronic diseases like AIDS, small box, zl influenza and measles.  **Virus As A Living (Animate ) Thing** Virus is often regarded as a living or animate thing because of the following reasons; i. Virus can reproduce when present in another living cell ii. It possess characteristics which can be transmitted from one generation to the next.  **Virus as a non-living (Inanimate) Thing**  Virus is often regarded as a non-living (inanimate) thing because of the following reasons; i. When a virus is extracted from a living cell and place in a non-living medium, it assumes a crystalline form and thus becomes non-living. ii. Virus cannot respire, excrete or respond to stimuli.  **Kingdom: Monera**  **Characteristics** i. They are uni-cellar; though some form filaments of cells. ii. The cells are prokaryotic iii. The cells have no organised nucleus, with nuclear membrane. iv. They do not have complex chromosomes v. There is no sexual reproduction.  **Monera Kingdom:** This is divided mainly into two Phyla namely; (a) Schizophyta (b) Cyanophyta  **Characteristics of Schizophyta** i. They are simple living things that belong to Monera. ii. They have prokaryotic cells with no definite nucleus. iii. They are microscopic and non-green plants. iv. They reproduce by asexual means (binary fission) v. They are unicellar organisms vi. They lack mitochondria vii. The cell has a rigid cell wall which is complex. viii. They lack cellulose but consist of polysaccharide and amino acids. Examples of organisms that belong to this phylum is bacteria.  **Characteristics Of Cyanophyta** i. They are microscopic in nature ii. They do not have cilia, flagella or other locomotive organelles but some move by gliding. iii. They reproduce by cell division iv. Their cells contain chlorophyll but not in chloroplast v. Their cell walls do not contain cellulose like that of bacteria vi. Examples of organisms in this group is the blue-green algae. | The students ask questions for further clarification. | To create room for slow learners. |
| **Evaluation** | The teacher evaluates the students with the following questions:   1. State the classes of living things. 2. State the general characteristics of the kingdom Monera. 3. Give at least 2 examples of the kingdom Monera. | The students attempt the questions. | To ascertain their level of understanding. |
| **Conclusion** | The teacher concludes by coping the note on the board. She checks and marks the note. | The students copy the note on the board. | For future use. |
| **Assignment** | Explain virus as a living thing and as a non living thing. | The students did and submit their assignment for marking and correction. | To encourage the students to study at home. |

**22nd September, 2023**

**DEPUTY HEAD INSTRUCTOR ADMIN**

**NB: Approved!**