**EMERALD ROYAL INTERNATIONAL SCHOOL, MPAPE ABUJA**

**LESSON PLAN AND NOTE FOR WEEK 2 ENDING FRIDAY, 20th**

**JANUARY, 2023**

**TERM:** SECOND TERM

**WEEK:** WEEK 2

**DATE** : 16th - 20th January 2023

**SUBJECT:** BIOLOGY

**CLASS : SS 1**

**TOPIC:**  vertebrate

**SUB - TOPIC:**  1. The skull

1. The vertebral column
2. The axial skeleton

**PERIOD : 7th**

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

**DURATION** : 40 minutes

**AVERAGE AGE** : 14 years

**SEX:** mixed

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

1. Part of the skull and its functions.
2. State the vertebral column in mammals.
3. State the skeleton of the limbs, sternum and ribs, hind limbs

**RATIONALE:** the students should understand the axial and appendicular skeleton.

**PREVIOUS KNOWLEDGE:** The students can identify a mammalian skeleton.

**INSTRUCTIONAL MATERIALS:** mammalian skeleton

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

**LESSON DEVELOPMENT**

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| **STAGES** | **TEACHER’S ACTIVITIES** | **PUPILS ACTIVITIES** | **LEARNING POINT** |
| **INTRODUCTION** | The teacher introduces the lesson by displaying the mammalian skeleton and ask the students to identify the axial and appendicular skeleton. | The students identify the axial and appendicular skeleton. | To arouse the students interest. |
| **PRESENTATION**  **STEP 1** | The teacher explains the bones of the axial skeleton. | The students pay attention. | To keep them focus. |
| **STEP 2** | The teacher asks the students to state the bones of the axial skeleton and its functions. | The students state the bones of the axial skeleton and its functions. | To encourage critical thinking |
| **STEP 3** | The teacher states the appendicular skeleton. | The students were active and participate. | To encourage retention ability. |
| **BOARD SUMMARY** | Summaries the lesson thus: BONES OF THE AXIAL SKELETON  The skeletal system or bones in mammals are grouped into two major parts; The axial and appendicular skeleton.  **THE AXIAL SKELETON -** it is made up of the skull, vertebral column or backbone, the ribs and sternum or breastbone.  **THE SKULL** - The mammalian skull is made up of several flat bones which are joined together by means of joint called **suture .**  The skull is made of three major parts which are;   1. The cranium or brain box which holds or contains the brain. 2. The facial skeleton which supports the nose, eyes and the muscles of the the chest. 3. The jaw which are made up of the upper jaw(maxilla) and the lower jaw( mandible) which contains the teeth.   FUNCTIONS OF THE SKULL   1. It protects the brain. 2. It bears the teeth which aids grinding of food. 3. It gives shape to the head. 4. It protects vital organs in the head like the eyes, nose and the ears.   THE VERTEBRAL COLUMN  This is also known as the backbone or spinal column and it is the central supporting structure of the skeleton and it protects the spinal cord. Humans have 33 vertebrate(singular vertebra) in mammals.  In mammals the five different vertebra are;   1. Cervical vertebrae 2. Lumber vertebrae 3. Thoracic vertebrae 4. Sacral vertebrae 5. Caudal vertebrae   vertebra  THE APPENDICULAR SKELETON.  This is made up of the girdle ie pectoral and pelvic girdles as well as the bones of the limbs ie fore limbs and hind limbs.  The pectoral girdle - this is found around the shoulder in man. It is made up of two halves which are held by muscles. Each half of the girdle is made of three bones namely;   1. Scapular or shoulder blade. 2. The clavicle or collar bones. 3. Coracoid.   In mammals, the scapula and coracoid are fused to form what is called scapular-coracoid. the scapular is a flat triangular bone. At the apex is a hollow or cavity called the glenoid cavity into which the head of the humerus fit to form the shoulder joint. Above the glenoid cavity is a small hook-like shaped bone called the coracoid bone.  corocoid  The pelvic girdle - the pelvic girdle is found around the waist in man. It consist of two halves which are joined to each other ventrally and to the sacrum dorsally. The line of fusion of the two halves is called pubis sympysis. Each half is called innominate bone. Each half is made up of three bones which are;   1. Ilum 2. Ishium 3. Pubis.   They are fused together.  The limbs - this is made up of the bones of the fore limbs ( bones of the hands) and the hind limbs ( bones of the legs).  The fore limbs of mammals like Rabbits is made up of an upper arm bone which is a long bone called the humerus. The humerus is followed by the bones of the forearm; the radius and ulna.  In man, the metacarpals are called fingers. They are referred to as the phalanges.  The hind limbs - the hind limbs of mammals like Rabbit is made up of thigh bone called the femur. The femur is the longest and the strongest bone of the body.  phallages | 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 bones of the axial skeleton. 2. State at least 4 functions the skull. 3. List the bones of the appendicular skeleton. 4. State the bones of the pectoral girdle. 5. What is the longest and the strongest bone of the body. | 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** | 1. Draw the human skull 2. Draw the bones of the pectoral and pelvic girdle. | The students did and submit their assignment for marking and correction. | To encourage the students to study at home. |



4/3/2023

Principal Head Instructor

NOTE: Do the same as in the other previous lesson plan/note