**LESSON PLAN AND NOTE FOR WEEK 4 ENDING FRIDAY 3RD FEBRUARY 2023**

**TERM: SECOND TERM**

**WEEK:** **WEEK 4**

**DATE** : **30TH  JANUARY - 3RD FEBRUARY, 2023**

**SUBJECT: BIOLOGY**

**CLASS : SS 1**

**TOPIC: NUTITION IN NANIMALS**

**SUB - TOPIC: 1**. **classes of food substances.**

1. **balance diet.**
2. **Food test.**

**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. List and give examples of the classes of food.
2. Define balanced diet.
3. Explain the food test for various classes of food.

**RATIONALE:** the students should understand the classes of food and concept of balanced diet.

**PREVIOUS KNOWLEDGE:** The students have been taught supporting tissues in plants.

**INSTRUCTIONAL MATERIALS:** chart showing the classes of food, examples of balanced diet, materials for various food test.

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

**LESSON DEVELOPMENT**

|  |  |  |  |
| --- | --- | --- | --- |
| **STAGES** | **TEACHER’S ACTIVITIES** | **PUPILS ACTIVITIES** | **LEARNING POINT** |
| **INTRODUCTION** | The teacher introduces the lesson by reviewing the previous lesson. | The students pay attention. | To arouse the students interest. |
| **PRESENTATION**  **STEP 1** | The teacher lists and explains the classes of food and their examples. | The students pay attention. | To keep them focus. |
| **STEP 2** | The teacher asks the students to define balanced diet and give examples. | The students defines balanced diet and give examples of balanced diet. | To encourage critical thinking |
| **STEP 3** | The teacher explains the food test. | The students pay attention. | To keep them focus. |
| **BOARD SUMMARY** | **NUTRITION IN ANIMALS**  Food substances are defined as materials or substances or food eaten by animals to enable them survive and their activities.  **CLASSES OF FOOD**   1. **CARBOHYDRATES** - it is made up of carbon, hydrogen and oxygen. They have the formula of CX(H2O). Main sources of carbohydrate are rice, maize, millet, guinea corn, garri e.t.c.   There are three types of carbohydrates namely;   1. **Monosaccharide( simple** **sugar)** - they general formula is C6H12O6. examples are glucose, fructose and galactose. 2. **Disaccharides(reducing sugar)** - they consist of two units of simple sugars with general formula of C12H22O11. examples are sucrose. Maltose, lactose. 3. **Polysaccharides(complex** **sugars**) - it consist of more than two sugars joined together with general formula (C6H10O5)n., where n represent a large number. Examples are starch, cellulose, chitin and glycogen( animal fat). excess carbohydrate is stored in the body in form of glycogen in the muscle and liver. 4. **PROTEIN** - They are complex molecules and are made of smaller units called amino acid. Protein is composed of carbon, hydrogen and sulphur. Animal sources of protein are milk, egg,fish, cheese. Chicken etc. While plant sources are beans, groundnut, soya beans etc. 5. **FATS AND OIL** - They are also called lipids. Fats are solid lipid at room temperature while oils are liquid lipids at room temperature. They are hydrolysed during digestion to fatty acid and glycerol. Fats and oils are composed of carbon, hydrogen and little oxygen. Sources of fats and oil are palm oil, groundnut, melon oil, butter, fish, margarine etc. 6. **MINERAL SALTS** - Animals requires minerals for metabolic activities except for sodium chloride (NaCl ) table salt, iron tables which can be taken directly, other mineral salts are usually taken in minute quantity through food. Lack of mineral salts results in nutritional deficiencies. 7. **VITAMINS** - They are organic food substance required by man and animals in small amount for normal growth and healthy development. Vitamins are grouped into 2 classes namely; 8. **Fat soluble vitamins**  - they are only soluble in fat examples are vitamins A,D, E,K. 9. **Water soluble vitamins** - they are only soluble in water. Examples are vitamins B , C. 10. **WATER** - It is composed of two elements hydrogen and oxygen. Sources of water are metabolic water from food, drinking water from river, stream etc. 11. **ROUGHAGES** - It consist of indigestible fibrous materials driven from vegetable , fruits, carbohydrates and protein. Roughages provides bulk to the intestinal content thereby stimulating the movement of bowel. Lack of roughages in the diet causes constipation.   **BALANCED DIET**  This is a diet containing all the six classes of food in the right proportion to meet the body's requirement for growth, repair and maintenance.  **IMPORTANCE OFBALANCED DIET**   1. It encourages growth and normal development of the body. 2. It makes animals and human being healthy.   **FOOD TEST**  **foodtest** | The students ask questions for further clarification. | To create room for slow learners. |
| **Evaluation** | 1. Define food substance. 2. State the classes of food and give 2 sources of each. 3. State the food test for the following; 4. Starch. 5. Fats and oils. 6. Proteins. | 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. State 3 importance of food. | The students did and submit their assignment for marking and correction. | To encourage the students to study at home. |



14/3/2023

Principal Head Instructor