**EMERALD ROYAL INTERNATIONAL SCHOOL MPAPE, ABUJA**

**LESSON PLAN AND NOTE FOR WEEK 3 ENDING FRIDAY, 26TH**

**JANUARY, 2024**

**TERM: SECOND**

**WEEK: WEEK 3**

**DATE : 22ND - 26TH January 2024**

**SUBJECT: BIOLOGY**

**TOPIC: SUPPORTING TISSUES IN PLANT**

**SUB - TOPIC: 1. structure of supporting tissue.**

1. **Components of supporting**

**PERIOD : 7th**

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

**DURATION : 40 minutes**

**CLASS: SS1**

**NUMBER IN CLASS : 8**

**AVERAGE AGE : 14 years**

**SEX: mixed**

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

1. Explain the structure of supporting tissue in plants.
2. State the components of supporting tissue in plant.
3. Explain the components of supporting tissue in plant.

**RATIONALE:** the students should understand the structures and component of supporting tissues in plant.

**PREVIOUS KNOWLEDGE:** The students have been taught skeletal system of mammal.

**INSTRUCTIONAL MATERIALS:** chart showing the supporting tissues in plant.

**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 reviewing the previous lesson. | The students pay attention. | To arouse the students interest. |
| **PRESENTATION**  **STEP 1** | The teacher explains the structure of supporting tissue. | The students pay attention. | To keep them focus. |
| **STEP 2** | The teacher asks the students to state the components of supporting tissue in plant. | The students state the components of supporting tissue in plant. | To encourage critical thinking |
| **STEP 3** | The teacher explains the components of supporting tissues in plant. | The students pay attention. | To keep them focus. |
| **BOARD SUMMARY** | **SUPPORTING TISSUES IN PLANT**  Supporting tissues in plant gives plants their definite shape, strength, rigidity and resistant against external forces such as wind ans water which they are continuously subjected to. Supporting tissues include;   1. **PARENCHYMA** - These are found in the cortex of stem, phloem, root, and in the hypodermis just between the epidermis.   **Structure of parenchyma tissue.**  They are composed of cells with large vacuoles and relatively thin walls. They are living cells with cellulose and many space within them. It is the most common abundant plant tissue.  **FUNCTIONS**   1. It gives firmness and turgidity to the stem of a herbaceous plants. 2. They also store food and water. 3. They are found in the leaf and mesophyll functioning mainly in the synthesis of food. 4. **COLLENCHYMA TISSUE** - They are usually located in the cortex of stems, roots and the hypodermis just beneath the epidermis.   **STRUCTURE OF COLLENCHYMA TISSUE.**  The cells of the collenchyma tissue are living elongated and unevenly thickened at the corners. The cells are flexible and thus allows the bending and twisting strains to which the stem, roots and leaves of plants are subjected to.  **FUNCTIONS**   1. They gives flexibility and resilience to plants ie enable plants to bend without breaking. 2. It provides strength and supports in young growing plants parts. 3. **SCLERENCHYMA** TISSUES - These are found mainly in the pericycle in the vascular tissue and cortices of roots and stem.   **STUCTURE OF SCLERENCHYMA TISSUE**  It has cell which are ticked walls containing lignin in addition to cellulose and other substances. There are two types of sclerenchyma, fibre and sclereids. Fibre are elongated cells with tapering ends. These help to provide strength and flexibility to plants.  **FUNCTIONS**   1. The give flexibility to plants and prevent them from breaking. 2. They provide strength, rigidity, hardness and support to plants. 3. **WOOD OR XYLEM TISSUE-** They are found mainly in the vascular tissues of roots and leaves.   **STRUCTURE OF WOOD OR XYLEM TISSUE**  It is made up of several tissues namely tracheid, vessels, fibre and xylem parenchyma.  **FUNCTIONS**   1. It provides support, strength and shape to plants. 2. It helps to conduct water and dissolved mineral salts from the roots to the leaves. 3. **PHLOEM TISSUE -** These are closely associated with the major supporting tissue. The tissue are located with in the vascular bundles of all plants be it in the root, stem or leaves.   **STRUCTURE OF PHLOEM TISSUE**  It is made up of 4 cells namely; sieve tube, phloem parenchyma, phloem fibre and companion cells.  **FUNCTIONS**   1. The general function of the phloem is to conduct manufacture food from their area of synthesis to area where they are needed. 2. They assist to provide support to the entire plants. | The students ask questions for further clarification. | To create room for slow learners. |
| **Evaluation** | 1. Define supporting tissues in plant. 2. List and explain at least 5 supporting tissues in plants. 3. State the functions the supporting tissues in 2 above. | 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. Explain the types of wood tissue. 2. Explain the types of phloem tissue and their functions. | The students did and submit their assignment for marking and correction. | To encourage the students to study at home. |



26th January, 2024

Deputy Head Instructor Admin

APPROVED!