**EMERALD ROYAL INTERNATIONAL SCHOOL, MPAPE ABUJA**

**LESSON PLAN AND NOTE FOR WEEK 2 ENDING 12TH MAY, 2023**

**TERM: THIRD**

**WEEK : 2**

**DATE: 8TH - 12TH MAY, 2023**

**SUBJECT : CHEMISTRY**

**TOPIC : CARBON AND ITS COMPOUNDS**

**SUB- TOPIC : 1. carbon as a compound.**

1. **Definition of allotopy.**
2. **Allotropes of carbon.**

**PERIOD: 1ST**

**TIME : 8: 10 - 8 :50**

**DURATION:**  **40 minutes**

**CLASS: SS1**

**NUMBER IN CLASS:** **7**

**AVERAGE AGE: 14 years**

**SEX: mixed**

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

1. Explain carbon as an element.
2. Define allotropy.
3. State the allotropes of carbon.

**RATIONALE:** The students should understand the allotropes of carbon.

**PREVIOUS KNOWLEGDE:** The student have been taught the sources and uses of water.

**INSTRUCTIONAL MATERIALS:** A chart showing the allotropes of carbon.

**REFERENCE MATERIALS:** New school Chemistry for Senior Secondary Schools by Osei Yaw Ababio .

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| **STEPS** | **TEACHER’S ACTIVITIES** | **STUDENTS’ ACTIVITIES** | **LEARNING POINTS** |
| **INTRODUCTION** | The teacher introduces the lesson by reviewing the previous lesson. | The students were active. | To arouse the students interest. |
| **PRESENTATION**  **STEP 1** | The teacher explains carbon as an element. | The students pay attention. | To keep them focus for better understanding. |
| **STEP 2** | The teacher states the allotropes of carbon and ask the students to repeat after her. | The students repeat after the teacher. | To encourage retention ability. |
| **STEP 3** | The teacher explains the allotropes of carbon. | The students pay attention. | To keep them focus for better understanding. |
| **BOARD SUMMARY** | **Carbon and Its Compounds**  **Carbon**: is a non–metal that belongs to Group IV elements.  It exhibits the phenomenon of **allotropy.** (i.e. it can exist in  various forms in the same physical state).  **Allotropes -** These are different forms of the same element,  which exist in the same physical state, with same chemical  properties.  **Allotropy:** Allotropy is a phenomenon whereby an element  exists in different forms in the same physical state.  However, they have the same chemical properties.  The crystalline allotropes of carbon are diamond and  graphite. Non–crystalline (or amorphous) carbon is coal,  charcoal, coke, lampblack(soot) and carbon fibre.  **Physical properties of Diamond**   1. It is the hardest substance known. Onle a diamond can cut a diamond. 2. It has a high melting point. 3. It is very dense and is resistant to high temperature and chemical attack. 4. It is a non conductor of electricity. 5. Carbon is very inert but burns in air at about 900 degree celcius to form carbon(iv) oxide.and combine with fluorine at about 700 degree celcius.   **Uses of Diamond**  1. Used industrially for drills in mining  2. Used as abrasives to sharpen very hard tool  because it is dense and hard  3. Used as pivot support in precision instruments  4. Used as jewellery due to its high refractive index  and dispersion power  5. Used for cutting glass and metals because it is dense  and hard. | The students ask question for clarification. | To create room for slow learners. |
| **EVALUATION** | The teacher evaluates the students with the following questions;   1. explain carbon as an element. 2. Define allotropy. 3. State 4 properties of diamond. 4. State at least 4 uses of diamond. | The students attempt the questions. | To ascertain their level of understanding. |
| **CONCLUSION** | The teacher concludes by copying note on the board. She checks and marks the notes. | The students copy the note into their note books. | For future use. |
| **HOME WORK** | Draw the diagram of diamond. | The students did your assignment and submit for marking and correction. | To encourage the students to study at home. |



9/5/2023

Principal Head Instuctor