**EMERALD ROYAL INT’L SCHOOL**

**LESSON PLAN/NOTE FOR WEEK 1 ENDING: 5TH MAY, 2023**

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| **Term** | 3rd |
| **Week** | 1 |
| **Date** | 4/05/2023 |
| **Class** | SSS 1 |
| **Subject** | Mathematics |
| **Topic** | Deductive Proof 1 |
| **Sub-topic** | Types and Properties of Triangles |
| **Period** | 1 and 2 |
| **Time** | 8:45-9:55am |
| **Duration** | 80minutes |
| **Number in class** | 8 |
| **Average age** | 13years |
| **Sex** | Mixed |
| **Specific objectives** | By the end of the lesson, the students should be able to:   1. Define an angle 2. List the types of angles 3. Explain the elementary theorems of angles |
| **Rationale** | To enable the students understand Deductive proof |
| **Previous knowledge** | Students should have been taught on lines |
| **Instructional aid** | Cardboard paper, cuts-outs of angles, protractor, lesson note and textbook. |
| **Reference** | * H.N. Odogwu e’tal. New Concept Mathematics for Senior Secondary School. Learn Africa. 3rd edition. Page 156-163. |

**LESSON DEVELOPMENT**

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| **STEPS** | **TEACHER’S ACTIVITIES** | **STUDENTS’ ACTIVITIES** | **LEARNING POINTS** |
| **Introduction** | The teacher introduces the lesson by stating that:   1. In geometry, a line is a straight one-dimensional figure that does not have a thickness, and it extends endlessly in both directions. | The students state the different types of lines | To give the students rudimentary understanding of angles. |
| **Step 1** | The teacher explains the meaning of Angles:  **ANGLES:**  Angles are the distances or changes in direction between two lines or surfaces, diverging between from the same point, measured in degrees (0). | The students begin to develop an idea of what an angle is. | To ensure proper understanding of the lesson |
| **Step 2** | The teacher explains the Types of Angles as follows:   1. **ACUTE ANGLE:** This is an angle that is less than 900.      1. **RIGHT ANGLE:** This is an angle that is equal to 900.      1. **OBTUSE ANGLE:**   This is an angle that is greater than 900 but less than 1800.  images (1)   1. **ANGLE ON A STRAIGHT LINE:**   An angle on a straight line is 1800  1800   1. **REFLEX ANGLE**   This is an angle that is greater than 1800 but less than 3600.  download (1)   1. **ANGLES AT A POINT:**   The sum of angles at a point is 3600.  images (3) | The students listen attentively to the teacher’s explanation | To ensure that all the students are carried along. |
| **Step 3** | The teacher explains the Elementary Theorems of Angles as follows:  **THEOREM 1**  Alternate angles are equal. When two lines are parallel to each other as shown, the angles are said to be alternate to each other and the are equal.  images  **THEOREM 2**  Vertically opposite angles are equal.  When two lines cross each other, the angles between the lines makes two pairs of equal angles; a=b, c=d,. These angles are called vertically opposite.  **THEOREM 3**  Angles that add up to 900 are called complementary  **THEOREM 4**  Angles that can be placed together on a straight line add up to 1800. These angles are called supplementary angles.  a+b+c= 1800  **THEOREM 5**  Angle on a straight line is 1800.  **THEOREM 6**  Angles that meet at a point add up to 3600.  **THEOREM 7**  Corresponding angles are equal  **THEOREM 8**  Allied angle add up to 1800.  When two lines are parallel to each other as shown, the angles are said to be allied angles. These angles will add up to 1800. | The students listen attentively to the teacher’s explanation. | Consolidate acquired knowledge on electric fields. |
| **Summary** | The teacher summarizes the lesson as follows:  A line is a straight one-dimensional figure that does not have a thickness and it extends endlessly in both directions.  Angles are the changes in direction between two lines or surface, diverging from the same point, and is measured in degree (0).  Elementary theorems of angles include:   * Alternate angles are equal * Vertically opposite angles are equal. * Corresponding angles are equal. * Allied angles add up to 1800. | The Students listen attentively to the teacher’s explanation | For Reference Purpose. |
| **Evaluation** | The teacher evaluate the Studets by giving the students the following classwork:   1. What is a line? 2. List 4 types of lines. | Answer the questions in their notebook. | To ascertain the students level of understanding of the lesson. |
| **Conclusion** | The teacher concludes the lesson by making corrections of the classwork | The Students copy the corrections in their notebook | For reference purpose. |
| **Home work** | The teacher gives the students the following Assignment:   1. State and explain any four types of angles 2. Identify any two practical applications of angles 3. State and explain any four angle theorems. | The students copy the questions into their exercise books. | To encourage critical thinking of students at home. |



23/8/2023

Principal Head Instuctor