**LESSON…2**

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| **SUBJECT: physics** |  |
| **Theme**  **Date**  **Class**  **Time**  **Duration** | Familiarizing with measuring instrument for distance.  16/09/2024  SS1A,B & C  11:10-12:30pm (80MINS)  80min |
| **Unit Topic**  **Lesson Topic** | Position, distance and displacement   1. Measurement of distance 2. Concept of direction 3. Concept of position and position coordinates |
| **Instructional Objectives**      **Previous knowledge** | 1. Students should effectively use measuring instrument of distance to measure distance 2. Determine direction 3. Understand the term reference frame and locate position in the Cartesian plane.   Students have used Rulers in measuring lengths of lines in their junior classes. |
| **Instructional Resources** | Venier calipers, spring balance, measuring cylinder, stop clock, micrometer screw guage,  New school physics by Anyakoha M.W,hidden facts in physics by Okolosi L. WAEC past questions and answers. |

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| **STAGES/STEPS** | **TEACHER’S ACTIVITIES** | **STUDENTS ACTIVITIES** | **MODE** |
| **PRESENTATION** | The teacher ask the students to measure or estimate distance from Earth to Sun. He allows students a minute to wonder and make their guesses. He then presents the lesson through the following steps. | The students are allowed 1 minutes to of discussion on inter-steller distances. | Individual |
| **STEP 1 (PRESENTATION OF PRIOR IDEAS)** | The teacher defines distance as the interval between two points and explains it as a scalar quantity. He then guides the students on the use of the meter rule, the vernier caliper, and micrometer screw gauge to measure distance. | Student measure distances as instructed using instruments provided. | Entire. |
| **STEP 2 (EXPLORATION)** | He discuss direction with respect to reference to compass bearing. Furthermore he explains that direction is more meaningful when determined from a frame of reference. | Students recall their cardinal points. | Entire |
| **STEP 3 (DISCUSSION)** | He defines the cartesian plane as a geometrical array of points with some reference point from which all distaces can be taken. This he states could be taken in various dimensions *i.e 2D,3D,(polar or spherical coordinates for the curious student )* | Students discuss the significance of the pair of coordinates. | Whole class |
| **STEP 4 (APPLICATION)** | The teacher uses the idea of coordinates to calculate the distance between two points and also distinguishes between distance and displacement. | Students to share there |  |
| **STEP 5 (EVALUATION)** | The teacher evaluates the lesson with the following questions:   1. Define distance and differentiate it from displacement. 2. Calculate the distance and displacement between the coordinates (-1,7) and (5,11) 3. Explain the term reference frame. | Students responds to questions | Whole class |
| **CONCLUSION** | The teacher briefly explains major ideas of the lesson and leaves the students with assignment | Students listen | Individual |
| **ASSIGNMENT** | 1. A cheetah fleeing from its hunter runs 45m west then 23m south. Find: i) Distance it covered and ii) Its displacement from origin. |  |  |
| **REFERENCE** | Anyakoha M.W New school physics 6th edition,Okolosi L hidden facts in physics , WAEC past questions and answers. Extensive physics for senior secondary schools. |  |  |

HOD’S COMMENT: ……………………………………………………………………………………….

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