**LESSON….1**

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| **SUBJECT: physics** |  |
| **Theme**  **Date**  **Class**  **Time**  **Duration** | Getting acquainted with physics.  9/09/2024  SS1A,B & C  11:10-12:30pm (80MINS)  80min |
| **Unit Topic**  **Lesson Topic** | Introduction to physics   1. Definition and applications of physics 2. Fundamental and derived quantities and their units |
| **Instructional Objectives**      **Previous knowledge** | 1. Define physics and recognize related careers in physics 2. Identify physical quantities, types and units 3. Understand dimensions as a means of determining units and testing the correctness of equations.   Students have used rulers and wrist watches |
| **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 familiarizes himself with his students and requires a student to explain how in the most precise way he/she can tell the exact distance between any two students | The students are allowed 2 minutes to share their methods | Individual |
| **STEP 1 (PRESENTATION OF PRIOR IDEAS)** | The teacher defines physics as a study of nature and its interaction in relation to energy and explains the consequence of the definition with the analogy of the predator-prey situation. He states some examples of careers from physics and allow students to suggest professions that involves physics | Students state and discuss areas of application of physics | Entire. |
| **STEP 2 (EXPLORATION)** | He explores physical quantities (observables) relevant for the study of physics and classify them into fundamental (e.g time, mass, length e.t.c) and derived (energy, electric field intensity, pressure e.t.c ) quantities. He also associates measuring instruments with stated observables. | Students sort out a list of observables provided by the teacher into fundamental and derived units | Entire |
| **STEP 3 (DISCUSSION)** | The teacher explains dimensions and how dimensions are useful in determining units of physical quantities such as in the case of young’s modulus  **=** | Students take notes | Whole class |
| **STEP 4 (APPLICATION)** | The teacher discusses applications of physics in areas such as transportation, radiotherapy, defense, space exploration, agriculture and construction and emphasizes the need for precision in measurements and conversion of units | Students to share there |  |
| **STEP 5 (EVALUATION)** | The teacher evaluates the lesson with the following questions:   1. (a) define physics and state five careers in physics 2. There are seven (7) fundamental quantities state them with their units and dimensions 3. Young’s modulus has the dimension . Can this be modified to have same units as pressure?and how? | 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. State the dimension of the following quantities;(a) Acceleration (b) pressure (c) density 2. From the following quantities given below, list out the derived and fundamental quantities in a tabular form: Velocity, mass, weight, length, volume, density, torque, speed, acceleration, power, energy, temperature, heat capacity, electric current, relative density |  |  |
| **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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