**NAME OF SUBJECT TEACHER: MR SOLOMON UWAOMA**

**CLASS: SS2**

**PHONE NUMBER: 08068735956**

**SUBJECT: PHYSICS**

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|  | **TOPIC** | **CONTENT** | **PERFORMANCE OBJECTIVES** | **PRACTICE QUESTIONS** |
| 1. | **EQUILIBRIUM OF FORCES** | -concept of equilibrium, moment of forces, centre of gravity, stability of objects, equilibrium of bodies in liquids, floatation, density and relative density, hydrometer. | -Distinguish between resultant and equilibriant  -Explain the effect of centre of gravity on the stability of an object.  -work simple problems on objects kept in equilibrium by a number of forces  -Explain what is meant by the moment of a force about a point. | 1. distinguish between kinetic and static equilibrium. Give an example each  2. Explain with the aid of a diagram what is meant by the moment of a force about a point.  3. What do you understand by the terms, moment of a force, couple and moment of a couple. Give two examples of application of couple in everyday life  4. State the conditions of equilibriums for non-parallel coplanar forces. |
| 2. | **SCALARS AND VECTORS** | -concept of vectors and concept of scalar, vector representation, addition of vectors, resolution of vectors components, resultant of more than two vectors | -Explain the concept of scalars and vector  -Compose at least two vectors  -resolve a vector into a given direction.  -explain the meaning of the resultant of two vectors | 1. state the principle of the parallelogram of forces  2. What is meant by the component of a force  3. What is meant by the resolution of a vector  4. Explain the parallelogram law of vectors |
| 3. | **HARVESTING OF SOLAR ENERGY-SOLAR COLLECTOR** | -Production of solar energy, solar collectors or solar panels, application of solar panel | -construct a solar collector  -Explain the use of solar energy panels for energy supply | 1. what are solar collector  2. itemise the components part of flat plate solar collector  3. Describe the principle of operation of a solar collector  4. State any four (4) applications of solar energy technology. |
| 4. | **MOTION** | Velocity-time graph, equation of uniformly accelerated, motion under gravity-free fall | -explain the terms use in the equation of motions  -deduce the distance covered between any intervals on the velocity-time graph  -deduce the three equations of motion from a velocity time graph. | 1. Distinguish between uniform acceleration and variable acceleration. Illustrate by means of a velocity-time graph  2. Write the equations of motion for a body falling freely under gravity.  3. State two (2) reasons why g varies on the surface of the earth.  4. what is resultant velocity and state the parallelogram law of velocities. |