[Physics](https://www.shuledirect.co.tz/notes/list_notes/2/19898)

1. [Introduction To Physics](https://www.shuledirect.co.tz/notes/list_notes/2/19898#19899)
   1. Concepts of Physics
      * Explain the concepts of physics
      * Establish the relationship between physics and other subjects
      * State the importance of studying physics
   2. Applications of Physics in Real Life
      * Explain the applications of physics in real life
      * Apply physics in daily life
2. [Introduction To Laboratory Practice](https://www.shuledirect.co.tz/notes/list_notes/2/19898#19912)
   1. Laboratory Rules and Safety Guidelines
      * State rules in physics laboratory
      * Explain the safety measures in physics laboratory
      * Use the First Aid Kit to render first aid
      * Identify warning signs
      * Use warning signs in daily life
   2. Basic Principles of Science Investigation
      * Explain the concept of scientific investigation
      * Identify the steps of scientific investigation
      * Use the scientific investigation methods in solving problems
3. [Measurement](https://www.shuledirect.co.tz/notes/list_notes/2/19898#19931)
   1. Concepts of Measurement
      * Explain the concepts of measurement
      * State the importance of measurement in real life
   2. Basic Fundamental Quantities
      * Define a fundamental quantity
      * Mention three basic fundamental quantities of measurement
      * State the S.I unit of fundamental quantities
      * Use appropriate instruments for measuring fundamental quantities
   3. Derived quantities
      * Explain derived quantities
      * State the S.I. units of derived quantities
   4. Basic Apparatus/equipment's and their uses
      * Describe basic apparatus/equipments used for measurement
      * Identify sources of errors in measurement
   5. Density and Relative Density
      * Explain the concept of density of a substance and its S.I unit
      * Determine the density of regular and irregular solids
      * Determine the density of a liquid
      * Define the relative density of a substance
      * Interpret applications of density and relative density in real life
4. [Force](https://www.shuledirect.co.tz/notes/list_notes/2/19898#19967)
   1. Concept of Force
      * Explain the concept of force
      * State the S.I unit of force
   2. Types of Force
      * Identify fundamental types of forces
      * Describe the properties of each type of the fundamental forces
   3. Effects of Force
      * Identify effects of forces
      * Justify the effects of forces on materials
5. [Archimedes' Principle And Law Of Flotation](https://www.shuledirect.co.tz/notes/list_notes/2/19898#19983)
   1. Archimedes' Principle
      * Explain the concept of upthrust
      * Verify the archimedes principle
      * Apply the archimedes principle to determine relative density
   2. Law of Flotation
      * Distinguish floating and sinking of objects
      * Explain the conditions for a substance to float in fluids
      * Relate upthrust and weight of floating body
      * State the law of flotation
      * Apply the law of flotation in everyday life
      * Describe the mode of action of a Hydrometer
      * Construct a simple Hydrometer
      * Use Hydrometer to determine the relative density of different liquids
6. [Structure And Properties Of Matter](https://www.shuledirect.co.tz/notes/list_notes/2/19898#20008)
   1. Structure of Matter
      * Explain the concept of matter
      * Justify the particulate nature of matter
      * Explain the kinetic theory of matter
      * Classify three states of matter
   2. Elasticity
      * Explain the concept of elasticity
      * Justify the relationship between tension and extension of a loaded elastic material
      * Identify the applications of elasticity in real life
   3. Adhesion and Cohesion
      * Explain the concept adhesion and cohesion
      * Identify the applications of adhesion and cohesion in daily life
   4. Surface Tension
      * Explain the concept of surface tension
      * Identify the applications of surface tension in daily life
   5. Capillarity
      * Explain the concept of capillarity
      * Identify the applications of capillarity in daily life
   6. Osmosis
      * Explain the concept of osmosis
      * Identify the applications of osmosis in daily life
7. [Pressure](https://www.shuledirect.co.tz/notes/list_notes/2/19898#20045)
   1. Concept of Pressure
      * Explain the concept of pressure
      * State the S.I unit of pressure
   2. Pressure due to Solids
      * Explain dependence of pressure on surface of contact
      * Identify the applications of pressure due to solids
   3. Pressure in Liquids
      * Describe the characteristics of pressure in liquids
      * Examine the variation of pressure with depth in liquids
      * Solve problems involving Pressure in Liquids
      * Explain the principle of a hydraulic pressure
      * Measure pressure of a liquid
   4. Atmospheric Pressure
      * Describe the existence of atmospheric pressure
      * Identify the applications of atmospheric pressure
      * Measure atmospheric pressure
8. [Work, Energy And Power](https://www.shuledirect.co.tz/notes/list_notes/2/19898#20074)
   1. Work
      * Explain the concept of work
      * State the S.I unit of work
      * Determine the work done by an applied force
   2. Energy
      * Explain the concept of energy
      * State S.I unit of energy
      * Identify different forms of energy
      * Distinguish between potential energy and kinetic energy
      * Explain the transformation of energy
      * State the principle of conservation of Energy
      * Explain the uses of mechanical energy
   3. Power
      * Explain the concept of power
      * State the S.I unit of power
      * Determine the rate of doing work
9. [Light](https://www.shuledirect.co.tz/notes/list_notes/2/19898#20104)
   1. Sources of Light
      * Explain the concept of light
      * Identify sources of light
      * Distinguish luminous from non-luminous bodies
   2. Propagation and Transmission of Light
      * Explain the concept of rays and beam of light
      * Verify that light rays travels in straight line
      * Identify transparent, translucent and opaque materials
   3. Reflection of Light
      * Explain the concept of reflection of light
      * Distinguish regular from irregular reflection of light
      * Apply the laws of reflection of light
      * Describe image formed by a plane mirror