**Introduction to Physics**

Physics is a Greek word meaning nature hence it deals with natural phenomena.

**What is Physics**

Physics is therefore a science whose objective is the study of components of matter and their mutual interactions.  
Physics is also defined as the study of matter and its relation to energy.  
physics enables us to understand basic components of matter and their mutual interactions it forms the base of natural science

**Branches of Physics**

**Mechanics** – the study of motion of bodies under the influence of force.  
**Electricity** – this deals with the movement of charge from one point to another through a conductor.  
**Magnetism** – the study of magnets and magnetic fields and their extensive applications.  
**Thermodynamics / heat** – this is the study of the transformation of heat from one form to another.  
**Optics** –the study of light as it travels from one media to another.  
**Waves** – the study of disturbances which travel through mediums or a vacuum.  
**Particle physics**  
**Nuclear physics**  
**Plasma physics**

**Basic laboratory safety rules**

1. Proper dressing must be observed, no loose clothing, hair and closed shoes must be worn.  
2. Identify the location of electricity switches, fire-fighting equipment, first aid kit, gas and water supply systems.  
3. Keep all windows open whenever working in the laboratory.  
4. Follow all instructions carefully and never attempt anything in doubt.  
5. No eating or drinking allowed in the laboratory.  
6. Ensure that all electrical switches, gas and water taps are turned off when not in use.  
7. Keep floors and working surfaces dry. Any spillage must be wiped off immediately.  
8. All apparatus must be cleaned and returned in the correct location of storage after use.  
9. Hands must be washed before leaving the laboratory.  
10. Any accidents must be reported to the teacher immediately.