

Science - is a systematic attempt to understand natural phenomena in depth.

Physics - It is the branch of science which deals with nature and natural phenomena.

STEPS INVOLVED IN SCIENTIFIC METHOD

Scientific method involves the steps such as,

1. systematic observations.
2. experimentation.
3. Qualitative and quantitative reasoning
4. mathematical modelling, prediction and verification or falsification of theories.

Relation between physics and technology.

A study of heat and thermodynamics has helped us to design various heat engines. The study of propagation of electromagnetic waves has helped us to design radio, TV, and wireless communication. The study of nuclear fission has helped us in the production of electricity and in the construction of atom bombs. Launching of a satellite has helped us in weather forecast and long distance communication.

Fundamental forces in nature.

1. Gravitational force - Force of attraction between any two objects due to their masses. It is a weak force. It is long range. It obeys inverse square law. It is a central force.
2. Electromagnetic force - It is the force between charged particles. It is a strong force. Long range force.
3. Strong Nuclear force - It binds the protons and neutrons in a nucleus. Strongest of all fundamental forces. It is chargeless.

Weak nuclear force :- The weak nuclear force appears only in certain nuclear processes such as β decay of a nucleus.

Questions.

1. Physics is related to technology. Comment.
2. What are the steps involved in scientific method?