

# Physics 1

A simple physics textbook covering basic concepts.

## Chapter 1: Motion and Forces

Motion is the change in position of an object over time. The study of motion is called kinematics. Forces cause changes in motion and are measured in newtons (N). Newton's first law states that an object remains at rest or in uniform motion unless acted upon by an external force.

## Chapter 2: Energy and Work

Energy is the ability to do work. Work is done when a force causes an object to move in the direction of the force. The formula for work is  $W = F \times d$ , where  $F$  is the force applied and  $d$  is the distance moved. Energy can exist in different forms such as kinetic, potential, and thermal energy.