

Physical Science B Course Description

Course Description

This course examines the basic concepts in physics with additional exposure to the scientific method. Upon completion of this course, the student will demonstrate competencies in the following fields: use and application of the scientific method, motion, force, Newton's Laws, gravity, pressure, work, power, energy (kinetic and potential) and heat. Knowledge will be demonstrated through scientific investigations, quizzes, unit exams, assignments, a midterm exam, and a final exam.

Course Requirements

Quizzes
Assignments
Discussions
Unit Exams
Midterm Exam
Final Exam

In order to pass this course, you must complete all the assessments and take the midterm and final exams.

Course Outline – Lesson Objectives

Unit 1 - The Metric System:

- The Metric System
- Motion
- Changes in Velocity
- Momentum

Unit 2 - Forces:

- Forces
- Friction
- Newton's Laws of Motion and Force
- Gravity
- Electric Charge

Unit 3 - Fluid Pressure:

- Fluid Pressure
- Pressure and Gravity
- Buoyancy
- Fluids in Motion

Unit 4 – Work:

- Work
- Power
- Machines
- Simple and Compound Machines

Unit 5 - Nature of Energy:

- Nature of Energy
- Kinetic and potential Energy
- Conservation of Energy
- Physics and Energy

Unit 6 – Heat:

- Heat
- Temperature
- Measuring Heat
- Heat and Phase Change
- Thermal Expansion

Unit 7 – Waves:

- Waves
- Characteristics of Waves
- The Nature of Light