Southmoreland School District
Physical Sciences Curriculum Overview

Exploring the Physical Science Overview:

This course is intended as an introduction to the physical sciences. Fundamentals of chemistry, physics, electricity, engineering, mechanics and laboratory techniques will be illustrated using a "hands-on" approach that will combine theory with instrumentation and experimentation. In addition, vocational opportunities and practical applications of the physical sciences will be highlighted. The course will include 1 or 2 days per week of laboratory experiments.

Module Titles:

Module 1: Motion and forces
Module 2: Energy
Module 3: Waves
Module 4: Matter
Module 5: Reactions

Module Overviews:

Module 1: Motion and forces
Includes the study of 1 and motion as developed by Sir Isiac Newton. The study of speed, velocity, displacement, distance, and time.

Module 2: Energy
This includes the study of Conservation of Energy and includes mechanical potential and kinetic energies. Conservation of energy in terms of Heat is also investigated.

Module 3: Waves
Includes study of waves in sound, electromagnetic waves, and light.

Module 4: Matter
Includes study of types of matter including Solids, Liquids, and Gases classification. The periodic table of elements is covered along with the history of the development of the atom.

Module 5: Reactions
Includes the study of chemical bonds, chemical reactions, and radioactive decay.