



Ephrata High School Course Syllabus



Principles of Physical Science #4005

I. Course Description

Physical Science is the study of the relationship between matter and energy, emphasizing the everyday applications of physical laws. The course deals with force, work, the laws of motion, the properties of matter, wave energy, and nuclear energy. Students learn that these studies have resulted in the technological advances of modern science. The curriculum covers the Pennsylvania state standards.

II. Materials & Equipment

Physical Science, published by Glencoe McGraw-Hill Publishing, copyright 2002, is the textbook used for this course.

III. Course Goals & Objectives

Students will:

1. Experience problem solving using the scientific method.
2. Develop proficiency in the skills necessary for working in the laboratory.
3. Acquire a body of knowledge regarding Physics.
4. Acquire a body of knowledge regarding Chemistry.

IV. Course Topics (Summary Outline)

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| I. The Nature of Science | X. Solids, Liquids, & Gases |
| II. Motion & Speed | XI. Classification of Matter |
| III. Forces | XII. Properties of Atoms & the Periodic Table |
| IV. Energy | XIII. Chemical Bonds |
| V. Work & Machines | XIV. Chemical Reactions |
| VI. Thermal Energy | XV. Acids, Bases, & Salts |
| VII. Electricity | |
| VIII. Radioactivity & Nuclear Reactions | |
| IX. Waves, Sound, Electromagnetic Waves, & | |

V. Assignments & Grading

A combination of tests, quizzes, laboratory activities, classroom assignments, and homework assignments will be used to evaluate students. All work will be assigned a grade value.

Approximate grade values:

- Tests 50%.
- Quizzes 15%.
- Labs, projects & classwork 20%.
- Homework 15%.

Each marking period grade will count 20% for the final grade, totaling 80%. The final 20% will be the cumulative final, which in combination with the four marking periods will be 100%.