

## Physical Science

### I. Course Description

This course is an introduction to chemistry and physics. It recognizes the Biblical basis for science. Areas that will be examined are: matter, atomic structure, meteorology, gases, the chemistry of matter, physical and chemical properties of metals, the properties of elements and compounds, organic and inorganic substances, laws of motion and simple machines, and energy of matter and waves.

### II Objectives

The student will learn about

#### A. Atomic World

1. Structure of matter
2. Radioactivity
3. Atomic Nuclei
4. Nuclear Energy
5. Applications and Environmental Hazards

#### B. Volume

#### C. Mass

#### D. Density

#### E. Physical Geology

1. Earth structures
2. Internal structures
3. Igneous structures
4. Mountains
5. Earth changes
6. Erosion and sediment
7. Oceans
8. Earth movements
9. Plate tectonics

#### F. Historical Geology

1. An observation science
2. Sedimentary rock
3. Fossils
4. Crustal changes
5. Measuring time
6. Absolute time

#### G. Body Health

1. Microorganisms
2. Pathogenic organisms
3. Infectious diseases

4. Digestive infections
5. Respiratory infections
6. Nervous system infections
7. Viral infections
8. Protozoan infections
9. Rickettsial infections
10. Fungal infections
11. Body defense mechanisms
12. Medical drugs
13. Environmental conditions
14. Medical advances and total health
15. Government agencies and volunteer groups
16. Medical and drug control organs

#### H. Astronomy

1. Presuppositions
2. Extent of the universe
3. Constellations
4. Measuring the universe
5. Gathering light and types of telescopes
6. Space exploration

#### I. Oceanography

1. Techniques for investigation
2. Major discoveries
3. Submersible research
4. Geneological structure
5. Turbidity, sedimentation and currents
6. Biology of the ocean
7. Chemistry of the ocean
8. Physical properties of the ocean

#### J. Science and Tomorrow

1. Ecology
2. Agriculture and waste
3. Population
4. Energy sources
5. Fossil fuels, nuclear/natural power
6. Industry, transportation and urbanization
7. Outer space
8. Inner space and self exploration

#### K. Review

### III. Course Outline

#### A. First Semester

1. Units 901,902,903,904 & 905
2. 17 quizzes
3. 5 tests

4. 1 midterm
- B. Second Semester
  1. Units 906,907,908,909 & 910
  2. 16 quizzes
  3. 4 tests
  4. 1 final exam

#### IV. Instructional Materials

Physical Science: Switched on Schoolhouse. Alpha-Omega, Pensacola, Florida, 2000

#### V. Teaching Method

1. Daily Lessons
2. Experiments
3. Projects
4. Vocabulary

#### VI. Evaluation

##### A. Components

1. Daily Work
2. Quizzes
3. Test
4. Mid-term exam
5. Final exam

##### B. Grading Scale

1. 100-90 = A
2. 89-80 = B
3. 79-70 = C
4. 69-60 = D
5. Lower = F