

Course Description **Sixth Grade** **Science**

Philosophy Statement: Science for the Christian is the study of God's creation. The exploration of the creation should yield a direct appreciation for the creative work of God. All that can be known of God we know through the creation and science is the study of that work. Students will continually be called on to see the divine order of creation its implications for other subjects and be stirred to think about the work of an infinitely loving, good God who has prepared a place for us to live temporally and eternally.

Course Objectives: The students will explore and experience a variety of areas within the field of science including plants, insects, invertebrates, volcanoes, earthquakes, space, periodic table of elements and stars. The student will enjoy learning about science through presenting things that they can see, observe, and understand in their world around them.

Textbook: Observing God's Word (A Beka)

Materials:

Students textbook
Bible
Activity sheets
Experiments and projects

Time Allotment: 50 minutes per day, Monday through Friday

Course Content:

Chapter One: Plentiful Plants
 Leaves: The Food Factories
 Roots and Stems
 Flower, Fruit and Seed
 Plant Families You Should Know
 The World of Trees
 Broadleaf Trees
 Conifers
 Plant Surprises: Ferns, Mosses, Algae and Fungi

Chapter Two: Observing Invertebrates
 Classification
 Insects: The Most Numerous Arthropods
 Familiar Orders of Insects
 Spiders: Arthropod Engineers
 A Selection of Spiders
 Spiders "Classmates:
 Crustaceans
 Centipedes and Millipedes

Worms and Mollusks: Invertebrates without External Skeletons
Strange Sea Specimens
Protozoans: Microscopic Invertebrates

Chapter Three: Our Fascinating Earth
Earth's Structure
Earthquakes
Volcanoes
Classification of Volcanoes
Fiery Rocks
Layered Rocks and Changed Rocks
Hidden Treasures of the Earth: Gems and Metals
Hidden Treasures of the Earth: Important Fuels
Caves
A Giant Magnet

Chapter Four: God's Great Universe
What is Space Like?
Galaxies: Giant Groups
Constellations: Figures in the Stars
Stars: Distant Wonders
Early Ideas in Astronomy
Exploring the Solar System
Our Earth
The Mysterious Moon
Smaller Space Travelers

Chapter Five: Exploring Space
Understanding Light
Instruments of Astronomy
Principles of Space Flight
Race to the Moon
Space Stations
Space Shuttle
Satellites and Space Probes
Exploring the Inner Planets
Exploring the Outer Planets
The Origin of the Universe

Chapter Six: Matter and Chemistry
Materials and Matter
Atoms: Building Blocks of Matter
The Elements
Groups of Elements
Molecules and Compounds

Areas to Be Evaluated:

- *Class work assignments
- *Homework assignments
- *Quizzes
- *Tests
- *Projects
- *Participation in experiments
- *Daily participation grades
- *Dissecting

Additional Activities:

- *Students will participate in a variety of projects and experiments to complement the course of study. Labs will be written out using the scientific method.
- *Students will participate in projects and dissecting.
- *Students will participate in the school wide Science Enrichment Week.

Course Description Seventh Grade Science

Philosophy Statement: Science for the Christian is the study of God's creation. The exploration of the creation should yield a direct appreciation for the creative work of God. All that can be known of God we know through the creation and science is the study of that work. Students will continually be called on to see the divine order of creation its implications for other subjects and be stirred to think about the work of an infinitely loving, good God who has prepared a place for us to live temporally and eternally.

Course Objectives: The students will explore and experience several areas in science. Included in these areas are life, viruses, bacteria, protoctists, fungi, plants, animals, the human body, genetics and heredity, and ecology. The students will enjoy learning about science through presenting things that they can see, observe, and understand in their world around them.

Textbook: Life Science (Christian School International)

Materials:

Student textbook
Bible
Enrichment worksheets
Activity sheets
Experiments and projects

Time Allotment: 50 minutes per day, Monday through Friday

Course Content:

Unit One: Life

- An Introduction to Life Science
- Characteristics of Life
- Cells
- Taxonomy

Unit Two: Viruses, Bacteria, Protoctists, and Fungi

- Viruses
- Bacteria
- Protoctists
- Fungi

Unit Three: Plants

- An Introduction to Plants
- Plan Activity

Unit Four: Animals

- Simple Invertebrates and Echinoderms

Arthropods
Vertebrates

Unit Five: Human Body

Organization, Nutrition and Digestion
Cardiovascular, Respiratory and Excretory System
Skeletal, Muscular, Nervous, Endocrine, and Reproductive Systems
Health

Unit Six: Genetics and Heredity

Genetics
Applications of Genetics

Unit Seven: Ecology

The Ecological Landscape
Ecosystems and Community Dynamics
Biomes
Conservation

Areas to Be Evaluated:

- *Class work assignments
- *Homework assignments
- *Quizzes
- *Tests
- *Projects
- *Participation in experiments
- *Dissecting
- *Daily Participation grades

Additional Activities:

- *Students will participate in a variety of projects and experiments to complement the course of study. Labs will be written out using the scientific method.
- *Students will participate in projects and dissecting.
- *Students will participate in the school wide Science Enrichment Week.

Course Description
Eighth Grade
Science

Philosophy Statement: Science for the Christian is the study of God's creation. The exploration of the creation should yield a direct appreciation for the creative work of God. All that can be known of God we know through the creation and science is the study of that work. Students will continually be called on to see the divine order of creation its implications for other subjects and be stirred to think about the work of an infinitely loving, good God who has prepared a place for us to live temporally and eternally.

Course Objectives: The students will explore and experience several areas of science. Included in these areas are: geology, the dynamic earth, water and water systems, meteorology, environment and astronomy. The students will enjoy learning about science through presenting things they can see, observe and understand in their world around them.

Textbook: Earth Science (Christian Schools International)

Materials:

Student workbook
Enrichment worksheets
Experiments

Time Allotment: 50 minutes per day, Monday through Friday

Course Content:

Geology

- Introduction to Earth Science
- Minerals
- Rocks
- Structure of the Earth
- Weathering and Erosion
- Soil

Dynamic Earth

- Moving crust
- Earthquakes
- Volcanoes

Water and Water Systems

- Water
- Oceans

Meteorology

- Atmosphere
- Weather

Climate

Environment

Natural Resources

Pollution

Astronomy

Solar System

Sun, Earth and Moon

Stars and the Universe

Space Exploration

Areas to Be Evaluated:

- *Class work assignments
- *Homework assignments
- *Quizzes
- *Tests
- *Projects
- *Participation in experiments
- *Dissecting

Additional Activities:

- *Students will participate in a variety of projects and experiments to complement the course of study. Labs will be written out using the scientific method.
- *Students will participate in projects and dissecting.
- *Students will participate in the school wide Science Enrichment Week.