



Scope and Sequence

Science/Ecology

GRADE LEVEL:

Jr. High and High School

COURSE OVERVIEW:

This scripturally founded book opens a window to the spectacular environments found on our planet, from deserts to the tropics, with respect to creationism. Researcher and biologist Dr. Gary Parker brings his vast knowledge of ecology to a teaching setting, exploring and explaining ecosystems, population growth, habitats, adaptations, energy problems, and much more. Learn about insect control in California, why mammals have fur, and how sharks maintain relationships with small fish known as remora. *Exploring the World Around You* brings the varieties of our planet's habitats alive to the reader.

FEATURES:

Filled with photos and illustrations to enhance the learning perspectives, this text contains concepts for discussion and review, detailed content explanations, chapter exams, and a thorough glossary of terms that can be utilized for reviewing vocabulary or spelling ability. Answers to the chapter tests are available in the back of the book. This title is available as a stand-alone text or in a special "*Exploring Series*" package that includes: biology, chemistry, Earth science, ecology, mathematics, history of medicine, and physics.

CONTENT FOCUS:

Unit One: Spaceship Earth and the Web of Life

Chapter 1: Building on the Right Foundation; Seeing the 4 Cs

Concepts for discussion:

- Did God create bad things?
- Why is there pain, death, and suffering?
- What does the future hold for earth?

Chapter 2: Ecosystems and Biogeography

Concepts for discussion:

- An ecosystem is like the human body.
- More marsupials live in Australia than anywhere else.
- The ostrich, emu, and rhea are similar, but far apart.

Chapter 3: Biomes

Concepts for discussion:

- Deserts are not always hot and sandy.
- Grasslands have no trees.
- Tropical rain forests are not jungles.

Chapter 4: Aquatic Ecosystems

Concepts for discussion:

- Water in large lakes will turn over every year.
- The only ecosystem without light still has life.
- The greatest diversity of life along the seashore is found along rocky coasts.

Unit Two: The Environment: Abiotic Factors

Chapter 5: Light and the Rhythms of Life

Concepts for discussion:

- Winter and summer occur at the same time on earth.
- Plants can tell if it's day or night.
- Different people have different peak activity periods each day.

Chapter 6: Temperature, Water, and Minerals

Concepts for discussion:

- Snakes like to lie in the sun on cold days.
- Virgin Island hotels refund tourists' money if the temperature exceeds 78° F.
- Fire is a necessary occurrence in some forests.

Unit Three: The Community: Biotic Relationships

Chapter 7: Food

Concepts for discussion:

- The first plants had a special light source.
- Plants need animals almost as much as animals need plants.
- Sharp teeth and beaks don't always mean that the animal is carnivorous.



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Chapter 8: Energy Flow

Concepts for discussion:

- Gaining weight can be difficult for some people.
- The sun loses 4 ½ million tons of mass every second.
- People in impoverished areas eat more grain than beef.

Chapter 9: Population Balance

Concepts for discussion:

- In two successive winters, over 60,000 deer starved in the Grand Canyon area.
- Animal populations can be kept in check without predators.
- The flocking of birds could be a kind of census.

Chapter 10: Population Growth and Control

Concepts for discussion:

- Lemmings plunge into the ocean in mass numbers.
- Many squirrels, birds, cats, and rabbits turned up dead in eastern Illinois.
- Robins and cardinals were disappearing from backyards.

Chapter 11: Succession

Concepts for discussion:

- Plants, as well as animals, migrate.
- Alligator and palm tree fossils have been found at the North Pole.
- There was no rain on the earth in its earliest days.

Unit Four: The Individual and the Species in the Ecosystem

Chapter 12: Niches, Habitats, and Adaptations

Concepts for discussion:

- “Mammals have evolved fur” is a religious statement.
- Bees can communicate through body movement.
- Plants always know which way is up.

Chapter 13: Symbiosis

Concepts for discussion:

- Crocodiles have birds to clean their teeth.
- Farmer ants get milk from their livestock.
- Some human bodies are used as nesting areas for other organisms.

Unit Five: Mankind in the Biosphere

Chapter 14: Pollution

Concepts for discussion:

- Many fish turned up dead in a recreational lake in Iowa.
- Laundry detergents were smuggled across state lines.
- A shopping bag was developed that could be boiled and eaten.

Chapter 15: Energy Problems

Concepts for discussion:

- Rain in Wheeling, West Virginia, once ate through umbrellas and burned people’s skin.
- The Hindenburg suddenly exploded while trying to land in New Jersey.
- Adolf Hitler powered his war machinery on alcohol fuels.

Chapter 16: Preservation and Human Population

Concepts for discussion:

- The Florida panther became an endangered species.
- Not every species should be protected from extinction.
- Family growth is restricted in some areas of the world.