

Science/Earth Science

GRADE LEVEL:

Jr. High and High School

Scope and Sequence

COURSE OVERVIEW:

Blending a creationism perspective of history with definitions of terms and identification of famous explorers, scientists, etc., this book gives students an excellent initial knowledge of people and places, encouraging them to continue their studies in-depth. Supplemented with photographs, illustrations, questions, and chapter review activities, *Exploring Planet Earth* brings to life people like Marco Polo and Christopher Columbus, and gives students the opportunity to read history that hasn't been altered or erased altogether.

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:

Chapter 1: How Big Is the Earth?

Concepts for discussion:

- · Is intelligence the same as knowledge?
- Do you think ancient people were as intelligent as people of today?
- In what way can it be said that Eratosthenes explored the earth?

Chapter 2: Masters of the Mediterranean

Concepts for discussion:

- Who were the great explorers and navigators of the ancient world?
- What are some other names for the Big Dipper?
- · Why did exploration that began with the Phoenicians come to a halt?

Chapter 3: Marco Polo's Big Adventure

Concepts for discussion:

- What are the special properties of asbestos and coal?
- Why was Marco Polo given the nickname "Marco Millions"?
- · Why were spices so strongly desired by people in Marco Polo's day?

Chapter 4: The Portuguese Sail East

Concepts for discussion:

- Why were spices more expensive in Portugal than in other countries of Europe?
- Who was Prester John?
- Why did Prince Henry leave Lisbon?

Chapter 5: The Spanish Sail West

Concepts for discussion:

- Why did Columbus think the route west to India would be shorter than the one east around Africa?
- · Why did friends and relatives of Columbus' crew weep as they put out to sea?

Chapter 6: Sailing Around the World

Concepts for discussion:

- · Why are the Vikings not given credit for the scientific discovery of the new world?
- · What more does successful exploration require than brave captains and crews?

Chapter 7: The Ten Thousand Names of Wind

Concepts for discussion:

- Why can the importance of something be judged by the number of names for it?
- · What affects the winds of the earth?

Chapter 8: The Mystery of Tides

Concepts for discussion:

- Describe some of the reasons that predicting tides is difficult.
- · Describe some of the benefits of tides.

Chapter 9: The Compass Points the Way

Concepts for discussion:

- Describe how the dip compass proved that a compass needle points to the earth's magnetic poles rather than the heavens.
- What can particles shot from the sun during solar storms cause on Earth?



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Exploring Planet Earth

Chapter 10: Time and Longitude

Concepts for discussion:

- · Explain the difference between local time and Greenwich time.
- · Focus on issues of time and longitude.

Chapter 11: A River in the Ocean

Concepts for discussion:

- Why did captains of British mail ships not listen to the captains of American whaling vessels?
- Describe some of the effects of ocean currents upon sea life and climate.

Chapter 12: Three Spheres

Concepts for discussion:

- Describe some of the ways scientists explore the solid part of the earth.
- Describe how gasoline and iron pellets cause Piccard's ship to sink and rise.

Chapter 13: Into the Heart of the Glacier

Concepts for discussion:

- What did Louis Agassiz believe was the best way to learn of nature?
- · What did professor Cuvier think was the cause of fossils?

Chapter 14: Rivers¾Earth's Lifeline

Concepts for discussion:

- What is a great river in your area and why do you consider it great?
- · Identify the descriptions of the Nile, Amazon, and Yangtze rivers.

Chapter 15: The Mysterious Valley

Concepts for discussion:

- Explain the role of photography in helping make Yellowstone the world's first national park.
- · List five natural sights found in Yellowstone.

Chapter 16: The Atmosphere

Concepts for discussion:

- What was the "invisible college"?
- Although Robert Hooke built the improved air pump, Robert Boyle is given credit as the inventor of the improved pump. Why is this?

Chapter 17: Exploring by Balloon

Concepts for discussion:

- Describe how professor Jacques Charles could control the rise and fall of his balloon.
- · Who made the first hot air balloons, and who were the first people to ride in one?

Chapter 18: The Age of Flight

Concepts for discussion:

- · What does controlled flight mean?
- · What does powered flight mean?

Chapter 19: To the Edge of the Atmosphere and Beyond

Concepts for discussion:

- · How did space travel change human beings' understanding of Earth
- What causes rockets to move forward?

