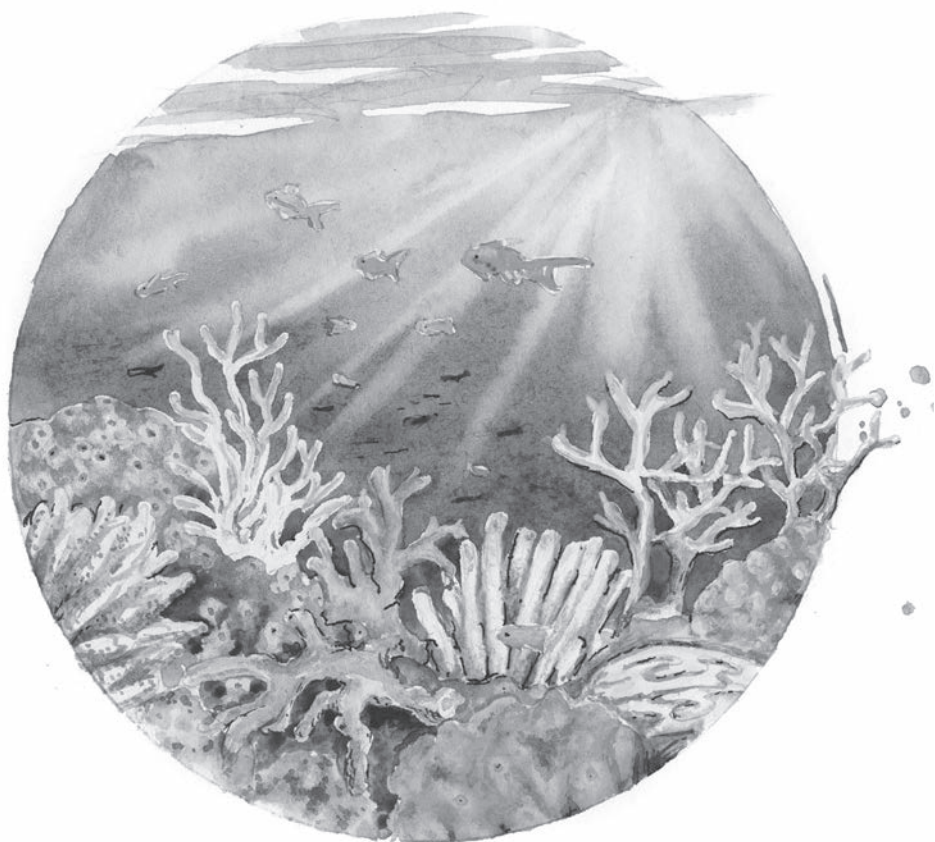


# *Christian Liberty Nature Reader Book 5*

**Third Edition**



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**ANSWER KEY**

Christian Liberty Press

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# *Text Key*

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## **Unit 1: Earth's Hydrosphere**

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### *The Ocean* (page 2)

1. The names of the five oceans are the Pacific, Atlantic, Indian, Arctic, and Southern oceans.
2. The Pacific Ocean lies west of the continents of North and South America, and east of the continents of Asia and Australia. The Atlantic Ocean lies east of the Americas, and west of Europe and Africa. The Indian Ocean lies south of the Indian subcontinent and east of Africa. The Arctic Ocean is located at the most northern region of our planet within the Arctic Circle. The Southern Ocean is south of 60 degrees latitude and surrounding Antarctica.
3. The hydrosphere is all of the water found on, under, and above the surface of planet Earth, which includes water in oceans, lakes, streams, and groundwater.

### *Seas, Bays, and Waterways* (page 6)

1. Fjords are narrow bays along the west coast of Europe and the northeast coast of North America and are filled with ocean water. Elsewhere in the world, they may be called bays, inlets, sounds, or channels.
2. The water cycle begins when water from the ocean evaporates, travels through the air, and then rains down on the land. This water fills lakes, flows into streams and rivers, and eventually flows into the ocean.
3. An estuary is a place where the river enters into the sea, and is a partially enclosed coastal body of brackish water that connects to the open ocean. A delta, on the other hand, is a landform that is created when sediment in the water collects near the mouth of a river as it enters a larger body of slower-moving or standing water.
4. A canal is a natural or man-made waterway through which ships can move between two large bodies of water.

### ***Waves and Tides*** (page 8)

1. Waves are caused by wind or seismic disturbances.
2. Tides are caused by the rising and falling of the surface of the ocean, which occurs because the earth is rotating and the ocean is affected by the gravitational pull of the sun and the moon.
3. Hurricanes and underwater earthquakes can cause a drastic rise or drop in the ocean, setting up extremely dangerous tsunami or seismic ocean waves, between 10 and 100 feet high, that hit the shore.

### ***Paths of the Sea*** (page 9)

1. Surface currents are caused mainly by wind and are influenced by the rotation of the earth. As the earth rotates from west to east, moving more rapidly at the equator than at the poles, this movement causes air and water to move counterclockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.
2. The thermohaline current is caused by surface water evaporating or turning into ice, which leaves water containing more salt, so it is denser and colder than the water below. This water sinks down, pushing up some of the water from the very bottom.

### ***God Made All Things*** (page 10)

1. God created the ocean on the second day of creation.
2. God created the plants on the third day of creation. God made the animals on the fifth and sixth days of creation.

### ***Habitats*** (page 12)

1. A habitat is the place where a plant or an animal naturally lives and grows.
2. *Answers may vary.* Habitats mentioned in this section are the bottom of the seas, rocky areas or coral, among the sea-grasses, and the deep ocean.

3. Bioluminescence is the ability of a living organism to create and emit light.

### *The Sargasso Sea* (page 13)

1. The Sargasso Sea is in the middle of the North Atlantic Ocean and is surrounded by ocean currents on all four sides; it does not have land on any of its borders.
2. Sargassum weed has little round bladders, or air sacs, that act like balloons, keeping the sargassum weed afloat.
3. Animals that live in the Sargasso Sea include tube worms, barnacles, and other small creatures attaching themselves to the plants. Shrimp, crabs, and turtles crawl around on the sargassum carpet. Fish also live in the water of the sea.

### *Plants in the Ocean* (page 15)

1. No, all plants are not the same in the ocean.
2. Some plants grow near the shore, or at least in water shallow enough that sunshine can reach them through the water. Most plants, including plankton, float so that the sunshine can reach them.
3. Plants are at the bottom of the food chain; animals eat plankton and tiny animals. Krill are very small, plant-eating animals that, in turn, are eaten by many of the larger fish and whales in the ocean.

### *The Deep Sea* (page 17)

1. It is hard to study the deepest parts of the ocean because of the darkness and the pressure of the water in the deeper parts of the ocean.
2. People thought that the deep, dark, cold ocean would be lifeless because there is no sunlight.
3. Chemosynthesis is a process used by bacteria or other living things in the deep ocean that turns inorganic (nonliving) material into food.