

MARINE ECOSYSTEMS

Read the text and then complete the tasks that follow.

Life in the Ocean

The oceans of the world are vast, covering most of our planet's surface and supporting an incredible variety of life. From warm tropical waters to the icy polar seas, every ocean region is home to unique plants and animals adapted to their environment. Together, they form complex ecosystems that make the ocean one of the most important and dynamic parts of Earth's biosphere.

Many ocean plants grow close to the surface or in shallow coastal waters where sunlight can reach them. Like plants on land, they need light to produce energy through photosynthesis. The deepest parts of the ocean receive little or no sunlight, so very few plants can survive there.

One of the most common ocean plants is seaweed, a form of algae that floats near the surface. Some seaweeds are microscopic, such as phytoplankton, which produce more oxygen than any other plant on Earth and are the base of most marine food chains. Larger seaweeds have been used by people for centuries as food and as materials for making ropes, baskets, and even building supplies.

Another important ocean plant is kelp, the largest type of seaweed, which can grow up to 250 feet (76 meters) long. Kelp forests provide shelter and food for many marine animals. Most kelp is brown, but some species display bright colors. Like other seaweeds, kelp depends on sunlight to grow and thrives in nutrient-rich waters.

A different group of ocean plants is seagrasses, which grow in shallow areas on the sea floor. Unlike algae, seagrasses have true roots, stems, and flowers. They form underwater meadows that are home to fish, turtles, and many small sea creatures.

The ocean is also the planet's largest habitat for animals. Marine animals can live near the coast, in the open ocean, or on the sea floor. Coral, for example, is often mistaken for a plant, but it is actually a living animal. It has tiny tentacles for catching food and lives in close partnership with algae, which give coral its color and provide it with energy.

There are thousands of species of fish in the ocean, from tiny sardines to giant sharks. The oceans are also home to many marine mammals, such as dolphins, whales, seals, and sea lions. Other sea creatures include octopuses, crabs, jellyfish, squid, and clams. Some animals, like sea turtles and marine iguanas, divide their lives between land and sea, while many seabirds—such as penguins, pelicans, and albatrosses—depend on the ocean for food and nesting grounds.

The ocean continues to be one of the least explored places on Earth. Scientists estimate that much of marine life still remains undiscovered, hidden in the dark depths of the sea. With each new expedition, researchers find species with unique shapes, colors, and survival strategies. Learning more about these organisms not only helps us understand how life adapts to extreme environments but also reminds us how much of our planet is still a mystery.

Task 1. Choose the best answer (A–D).

1. The text suggests that Earth's oceans
 - A. contain a limited number of well-known species
 - B. remain largely unexplored and support diverse life forms
 - C. are less diverse than land ecosystems
 - D. host only a few large marine mammals
2. Most ocean plants grow
 - A. on dry land
 - B. deep below the surface where no sunlight reaches
 - C. near the surface or in shallow water
 - D. in cold, dark ocean trenches
3. Seaweed is
 - A. a type of algae often used by people
 - B. a kind of coral that traps fish
 - C. a plant with roots and flowers
 - D. an animal living near the coast
4. Phytoplankton are important because they
 - A. form coral reefs
 - B. provide most of the oxygen on Earth
 - C. live only in the deepest parts of the ocean
 - D. are the largest sea plants
5. Kelp is
 - A. a kind of seagrass with roots
 - B. the largest type of seaweed
 - C. a floating animal
 - D. a microscopic plant
6. Seagrasses are different from algae because they
 - A. live on land
 - B. float freely on the surface
 - C. grow only in cold water
 - D. have roots, stems, and flowers
7. Coral is
 - A. a plant that feeds on algae
 - B. an animal that lives in partnership with algae
 - C. a type of seaweed
 - D. a species of phytoplankton
8. Which of the following groups includes marine mammals?
 - A. penguins, pelicans, and puffins
 - B. sea turtles, crocodiles, and iguanas
 - C. dolphins, whales, and seals
 - D. sharks, sardines, and tuna

9. Scientists continue to explore the ocean because

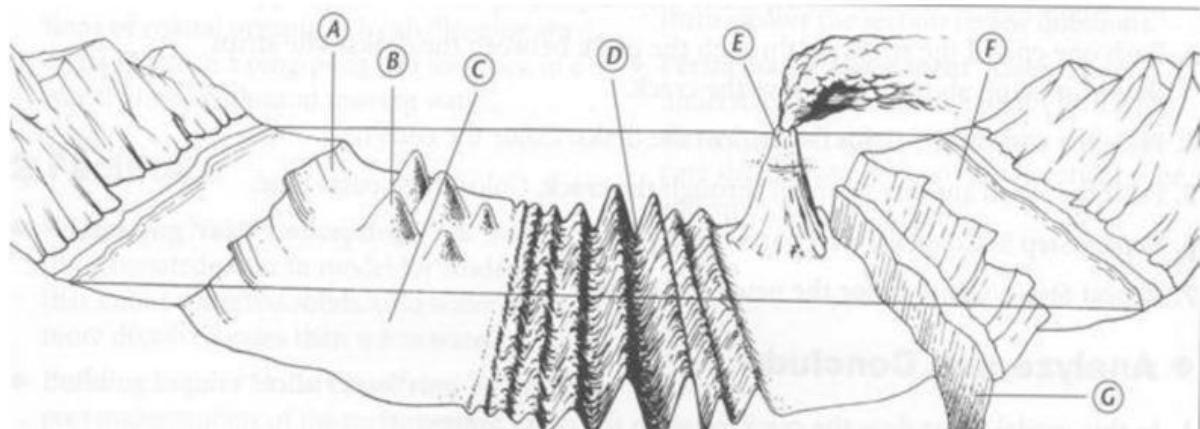
- A. most of it has already been studied
- B. many marine species remain undiscovered
- C. the sea floor contains no living things
- D. it is easy to reach the deepest parts

Task 2. Write T (True) or F (False).

1. Ocean plants can grow without sunlight.	T / F
2. Seaweed and kelp both depend on sunlight for growth.	T / F
3. Seagrasses grow in shallow water on the sea floor.	T / F
4. Coral feeds on algae in order to survive.	T / F
5. Marine mammals such as dolphins and whales live only on land.	T / F
6. Some animals, like turtles and iguanas, spend part of their lives on land and part in the ocean.	T / F
7. The ocean remains one of the least explored environments on Earth.	T / F

Task 3. Label the diagram of the ocean floor using the feature names from the word bank below. Then, write the letter (A–G) of each feature next to the correct definition.

<i>volcanic island</i>	<i>rift valley</i>	<i>continental slope</i>	<i>trench</i>
<i>continental shelf</i>	<i>sea mounts</i>	<i>abyssal plain</i>	



A. _____; B. _____; C. _____; D. _____;
E. _____; F. _____; G. _____

- 1. vast, flat, sediment-covered areas of the deep ocean floor
- 2. part of a continent that extends underwater to the deep ocean floor
- 3. underwater mountains made of volcanic material
- 4. the descent of the continental shelf to the ocean floor
- 5. a lowland in the ground caused by the seafloor spreading apart
- 6. a long, deep depression in the ocean floor
- 7. a landmass formed by volcanoes erupting from the ocean floor

