Bodies Of Water: Oceans

An ocean is a massive body of salt water. Oceans cover nearly 71 percent of Earth’s surface and contain almost 98 percent of all the water on Earth.

There is one world ocean, but it is divided into five main areas: the Pacific, the Atlantic, the Indian, the Arctic and the Southern, or Antarctic. Together, they can be seen as one world ocean because they have no real borders, and water flows freely among them. Smaller parts of these oceans are called seas, gulfs and bays.
Ocean Water

Ocean water is salty. The saltiness comes from a chemical substance called sodium chloride, which is dissolved in the water. (The salt that people eat is sodium chloride in the form of crystals.)

Winds and other forces cause ocean water to be constantly in motion. Large amounts of ocean water move around Earth in patterns called currents. Ocean currents may be warm or cold. Warm currents tend to bring warm weather and rain to nearby land, while cold currents tend to cause a dry climate. The Gulf Stream is a warm current that runs north along the eastern coast of the United States.

Winds also cause ocean water to move in waves. Steady, powerful winds cause big waves and gentle breezes create ripples. Large swells in ocean water usually come from stormy weather.

Tides, the rise and fall of ocean levels, are another way that ocean water moves. Tides happen throughout the day. On a beach, for example, the ocean covers more sand at high tide than at low tide. The pull of a force called gravity among the Earth, the moon and the sun causes tides.
Ocean Floor

The ocean floor has many levels. The shallowest part of the oceans, called the continental shelf, lies along the edges of the continents. The edges of the continental shelf slope down toward the deep parts of the oceans, called the basins. At the bottom of the basins are large, flat plains.

In some places, deep cracks called trenches cut into the ocean floor. In other places, underwater mountain chains, called oceanic ridges, rise up from the floor. Earthquakes sometimes occur along the trenches and ridges, and parts of the ridges even contain active volcanoes.

Ocean Life

Living things inhabit all levels of Earth’s oceans. Ocean plants grow fairly close to the water’s surface because they need sunlight to stay alive. Sunlight penetrates the water to only about 656 feet. The most numerous ocean plants, called phytoplankton, are tiny, one-celled plants that drift with the ocean currents. Various kinds of sea grass and other plants also grow in the world’s oceans, and seaweeds, which are plantlike forms of algae, are plentiful as well.
Like ocean plants, most ocean animals live in shallower water. This is because there are more plants and animals to eat near the water’s surface. But animals also can be found in deep water, including within the oceans’ deepest, darkest trenches.

The largest ocean animal is the blue whale. No larger animal has ever lived on Earth. The tiniest animals are a form of plankton called zooplankton. Hundreds of thousands of other types of animal also live in the ocean, including clams, crabs, squid, dolphins and many different kinds of fish. Corals and sea anemones look like plants, but they are animals, too.

**Importance Of The Oceans**

The world’s oceans are important to life on Earth. Oceans are a great source of food for people around the world and also provide minerals, oil and natural gas. Phytoplankton and algae create much of the world’s oxygen. Oceans also help to keep climates stable by storing heat from the sun.

Today, many dangers threaten the health of the oceans. People pollute oceans by dumping poisonous waste and garbage into them. Ocean pollution reduces oxygen in the water and harms ocean life. Overfishing and oil spills harm ocean life as well.

People called oceanographers study the oceans to try to keep them healthy. Some examine the quality of the water and the way the water moves. Others look at the structures of the seafloors and basins. Another group of oceanographers is interested in the plants and animals that live in oceans.