

## Ocean Resources

The oceans are important sources of food, minerals, fresh water, oil and natural gas. The ocean produces **about 65% of the oxygen in the air**. One mineral taken from the ocean water of The Bahamas is **salt**. Heat from the sun causes freshwater to evaporate from the ocean leaving the salt behind. Ocean water is also changed to fresh water by a process called **desalination**, which removes salts and other dissolved solids from ocean water.

Another mineral taken from the ocean in The Bahamas is aragonite. **Aragonite** is very fine limestone sand used in the manufacture of glass, cement, fertilizers and chemicals. Aragonite is dredged from the sea at Ocean Cay in Bimini. Marine plants such as **seaweed** are used in many countries as a source of food, medicine, in shoe polish, soap and as a fertilizer.

### Movement of the ocean water and how it is affected by the moon

Water covers almost **three-quarters** of the earth's surface. About one-tenth of all of the water on the earth is fresh water, and nine-tenths of it are saltwater. Most of the saltwater is found in the oceans. Water that moves from one ocean to the other is **called current**. Ocean currents are parts of the surface layer of the ocean that move continuously in a particular direction forming rivers in the ocean. Wind that is blowing over the surface of the ocean transfers energy to the water and causes waves to form.



### Waves are the alternating rising and falling of water

Tides are the **alternate rise and fall** of the oceans, seas, and the bodies of water that are connected to them. These changes in the surface level of the ocean are caused by the **gravitational force** of the moon acting on the oceans and seas. The force of gravity is strongest on the parts of the earth closest to the moon and weakest on the parts of the earth farthest from the moon.

Water on the side of the earth nearest the moon is pulled away from Earth by gravitational force. On the side of the earth farthest from the moon, the solid earth is closer to the moon than the water resulting in the earth being pulled more toward the moon than the water. This causes a **tidal bulge**. The highest tides occur when the moon and the sun are in line with Earth. The motion of the ocean causes weathering and erosion to the shoreline.

1. What is the percentage of air do we get from the ocean?

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2. What is the process by which ocean water is turned to fresh water? [1]

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3. The movement of ocean water to rivers is called. [1]

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4. What does the gravitational force of the moon cause? [2]

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5. Name TWO things marine plants are used for. [2]

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6. Name TWO minerals that we get from the ocean. [2]

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