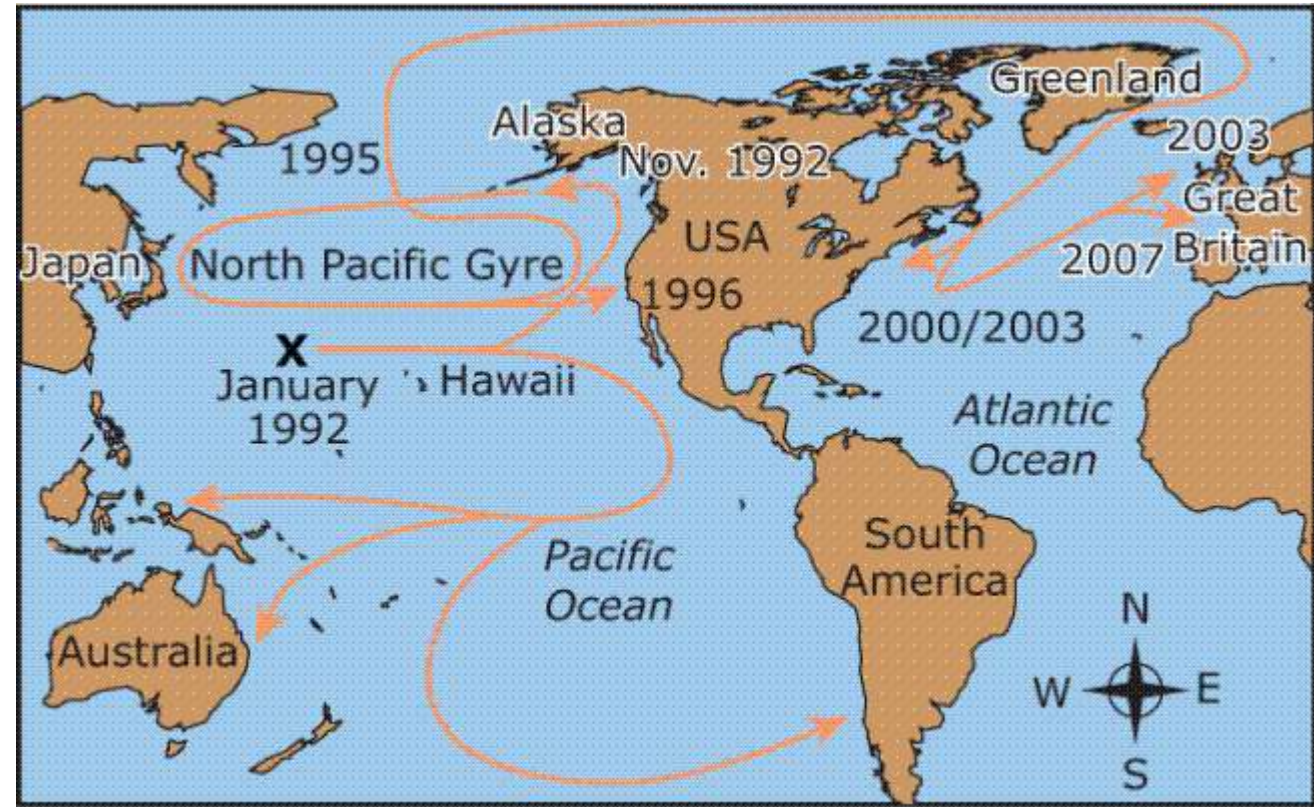


# Ocean Water Characteristics & Topography Review



Read the following and answer the questions on the next slide:

- In 1992, a crate of rubber duck toys fell from a ship in the middle of the Pacific Ocean, at the point marked with an X on the map below. Since then, the yellow ducks have floated off in many directions, and some are still riding the waves today. Some of the ducks have turned up on beaches in Hawaii, Alaska, South America, Australia, and the United States. A few went as far as Great Britain, and others have been found in arctic ice.



About 2,000 of the ducks are going around in circles in the Pacific Ocean in a loop of currents called the North Pacific Gyre. This current circles between Japan and Alaska. With the help of the rubber ducks, scientists learned that it takes three years for the North Pacific Gyre to complete one loop. The Gyre is also home to a floating area of plastics and other trash known as the Great Pacific Garbage Patch. This growing area of garbage endangers animals in the ocean.

As the garbage in the North Pacific Gyre breaks down over time, heavier pieces will sink. When the heavier garbage settles, where is it **most likely** to end up?

**A. seamount**

**B. abyssal plain**

**C. mid-ocean ridge**

**D. continental slope**

Oceans cover nearly 71% of Earth's surface. The ocean that contains 45% of all ocean water on Earth is located

**A. south of India**

**B. around the Arctic Circle**

**C. between Asia and the Americas**

**D. between the Americas and Africa/Europe**

An iceberg breaks off of a glacier and floats into the ocean. In the ocean, the iceberg begins to melt.

Which temporary effect does this melting have on ocean water in the immediate area of the iceberg?

- A. The melting ice lowers the freezing point of the ocean water.**
- B. The melting ice reduces the salinity of the ocean water.**
- C. The melting ice releases the carbon dioxide stored in ocean water.**
- D. The melting ice increases the acidity of the ocean water.**

Ocean water is usually not used for drinking or watering crops. Which property of ocean water makes it less usable for drinking or watering crops than the water from rivers and streams?

**A. Ocean water contains salt.**

**B. Ocean water contains sand.**

**C. Ocean water is far away from many people.**

**D. Ocean water has many organisms living in it.**

Which two statements in the table are true about the changing salt concentrations of ocean water?

1	When Earth's ice increases, ocean water gets saltier.
2	When Earth's ice increases, ocean water gets less salty.
3	When ocean water evaporates, the water gets saltier.
4	When ocean water evaporates, the water gets less salty.

- A. 1 and 3**
- B. 1 and 4**
- C. 2 and 3**
- D. 2 and 4**

North of the equator there is an area of the Atlantic Ocean that has high evaporation and little rainfall. How does this area **most likely** compare to other parts of the Atlantic Ocean?

**A. Its density is lower.**

**B. Its salt content is greater.**

**C. Its oxygen levels are more variable.**

**D. Its pressure remains the same at different depths.**



Short answer: Use at least one (1) complete sentence to respond to the following.

Describe the composition of ocean water, ie. compare the percentage of water to the percentage of salt.

Short answer: Use at least four (4) complete sentence to respond to the following.

Explain how an increase and a decrease in salinity can effect density of ocean water. Explain how an increase and a decrease in temperature can effect the density of ocean water.