Chemical Oceanography Worksheet

1. How does the chemical formula for water influence its chemical properties?

2. What is a hydrogen bond? How do they work? Would you describe those bonds as strong or weak?

3. Compare and contrast adhesion and cohesion.

4. Why is ice less dense than water as a liquid? Why is this property of water important for marine life?

5. When water cycles through the earth, it only stays in the atmosphere for about 9 days, but it can stay in the ocean for over 3,000 years. Why do you think there is such a big difference for the time frame for each phase? What might contribute to this difference in time?

6. Where do the dissolved salts in ocean water come from?

7. Outside of sodium and chlorine, what other salts are found in ocean water?

8. How does oxygen get into the ocean?

9. How salty is ocean water?

10. How does salinity impact water density?

11. Describe two ways of removing salt from ocean water? What is this process called? Explain the scientific theory behind each process.

12. How do conditions in the ocean change with depth?