

Name: \_\_\_\_\_ Section: \_\_\_\_\_

### Homework Assignment #1 (Due in Sections Week of Jan. 15)

- 1) We generally consider the Challenger expedition to be the first truly oceanographic expedition. The HMS Beagle (with Charles Darwin) sailed a few years before the Challenger...why isn't that considered the beginning of modern oceanography?
- 2) Explain why it might be more likely that life began in deep, mineral-rich regions of the ocean rather than in a hot primordial soup near the surface.
- 3) While on a vacation cruise, your boat sinks and you and your fellow passengers are stranded on a deserted island. You have a 2-way radio, but your rescuers need to know where you are. Fortunately, at night you can see that the North Star is exactly  $\frac{1}{3}$  of the way from the horizon to directly overhead (so it's fairly low in the sky), and during the day, when the sun is directly overhead, the ship's clock (which is set to Greenwich Mean Time) says it is 2 PM. Where are you? Give your answer in decimal degrees latitude (north or south) and decimal degrees longitude (east or west).
- 4) This next question is an "Internet Exercise" from the textbook website:  
  
<http://oceanexplorer.noaa.gov/technology/tools/satellites/satellites.html>  
The way that scientists gather information about the ocean has changed dramatically since the first oceanographic expeditions set sail in the late 1700s. While ships are still used as platforms for exploration, many oceanographers now rely heavily on remote sensing data gathered by satellites orbiting our planet. Using information found on the above link, describe three types of oceanographic properties that can now be measured from space.
- 5) How many atmospheres have existed on the planet Earth? What was the same or different about them?
- 6) As a first step towards completing your term paper, look through the class syllabus, textbook, website, and any other sources of information you think appropriate. Choose two potential topics that might interest you for a term paper, and describe them. The goal of this exercise is to get you thinking about what interests you in the field of oceanography, and to help you find an oceanographic topic that is not too general, but also not so specific that you won't find enough material. As you complete this exercise, remember that your paper can be on any subject in oceanography, so you don't need to restrict your choices to things we have, or will, cover in class.