

Name: _____ Date: _____ Period: _____

Ocean Abiotic Factors Activity
****Please Turn-In This Assignment****

Part 1: Complete the following table about the different ocean abiotic factors. Use the information page to assist you. Some of the definitions have already been filled in for you.

Abiotic Factor	Definition in your own words
Temperature	<i>The degree or intensity of heat present in a substance. There is concern that if ocean water gets too warm marine life may not be able to adapt.</i>
Salinity	<i>Saltiness or amount of dissolved salt in water. The salinity of the ocean varies on location.</i>
Nutrients	
Oxygen	<i>Forms about 20% of the Earth's atmosphere and is necessary for life. Made from photosynthesis.</i>
Solar Energy	<i>Heat and light from the sun. Powers photosynthesis, currents, and climate patterns.</i>
Water Clarity	
Tides	
Waves	<i>Disturbances caused by the movement of energy through water can be deep or on surface. They are most commonly formed by wind.</i>
Substrate	
Aerial Exposure	
Currents	<i>Mass movement of water powered by either wind, tides, Coriolis effect, the sun, or different water densities from temperature and salinity. Currents help regulate Earth's climate.</i>

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Part 2: Visit the three different ocean ecosystems around the room. Use the information about each ecosystem to decide which abiotic factors are impacting the organisms. Place check marks next to those factors in the chart below. Then write one brief example of how that factor is impacting organisms in the ecosystem.

	Rocky Shore		Coral Reef		Open Ocean	
	Abiotic Factor	Examples	Abiotic Factor	Examples	Abiotic Factor	Examples
Temperature						
Salinity						
Nutrients						
Oxygen						
Solar energy						
Water clarity						
Tides						
Waves						
Substrate						
Aerial exposure						
Currents						

Part 3: Answer the following question in your own words.

1. Over half of the American population lives within 50 miles of the coast. What are ways in which humans can impact abiotic factors in these ocean ecosystems?