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Draw a line graph showing relative annual precipitation along the 20° E longitude line. Left side of graph should represent northern section. What is the independent variable for the graph?

On a planet like Earth, you are given a map of the continents with longitude and latitude marked. You also have information about location of mountain ranges. Indicate what biomes you would expect to find where. (This question is designed to get students thinking about how placement and topography determine climate and therefore biomes. Students should understand why deserts often are around 30° N/S latitude, normal direction of trade winds, how leeward side of mountains (opposite side of prevailing wind) are dry.

Adaptations of Ocean Life

The oceans cover approximately 70% of the earth's surface and support a population of plants and animals that vary widely in their individual needs. Many of these organisms have adaptations that make them specially suited to compete for food in environments that present impossible living conditions for other life forms.

In this activity, you will examine *some sea organisms* and match them to the life zone in the ocean where they are best suited to compete for the food they need to live.

Use the information contained in the table to identify the characteristic properties of the three major life zones of the oceans.

Life Zones	Characteristic Properties
Intertidal Zone	a. Located between the average high- and low-tide levels of the ocean over the continental shelf b. Is alternately dry and wet as the tides change from low to high c. Sunlight penetrates the entire zone d. Many living organisms in this zone attach themselves to rocks or dig into the sand to protect themselves from the constant pounding of waves
Neritic Zone	a. Located over the continental shelf between the average low-tide level of the ocean and the edge of the continental shelf b. Is approximately 200 m thick at its maximum thickness c. Sunlight penetrates the entire zone d. Richest in life forms of any life zone of the ocean; most commercial fishing areas are within this zone e. Dense forests of seaweed from 60–90 meters long may cover the floor of this zone
Open Sea Zone	a. Includes all of the ocean beyond the continental shelf from the surface to the ocean basin floor b. Contains most free-floating or swimming life forms
The open sea zone is divided into the following subdivisions.	
Photosynthetic Zone	• Extends from the ocean surface to approximately 200 m • Sunlight penetrates the entire zone • Supports a rich variety of plants and animals; most plants are tiny one-celled organisms called diatoms