SOL 5.6 Oceans	**Question/Answer Packet**
The student will investigate and understand characteristics of the ocean environment. Key concepts include:	
5.6 a) geological characteristics	
1. Geographic characteristics of the ocean	What the land looks like- including: • Continental Shelf • Continental slope • Continental rise • Trench • Abyssal Plain
2. Describe the Continental Shelf.	• Is relatively shallow, it is the underwater edge of the continent • Is home to most of the ocean life (including plants and animal). • It begins at the shoreline and gently slopes underwater.
3. Describe the continental slope.	A steep slope that separates the continental shelf from the deep ocean basin. (from 200m to 3,000m in depth)
4. Describe the continental rise.	The area of the ocean at the bottom of the continental slope. It is a vast underwater hill made from tons of built-up sediment.
5. Describe the trench.	A very long and narrow canyon-like depression deep in the ocean floor.
6. Describe the abyssal plain.	A very wide, very flat section of the deep ocean floor made of thick layers of sediment.
7. What covers the ocean floor?	**Sediment**- which is made up of all the debris that drifts down from above, such as dead fish, decaying plants, animal wastes, and soil and rocks
8. What are underwater mountains that rise from the abyssal plain called? These land formations can become islands.	seamounts
9. About how much of the Earth's surface is covered with water?	70%
5.6 b) physical characteristics: Waves, tides, and currents & saltiness of seawater	
10. What are the 3 motions of the ocean?	Waves, tides, and currents.
11. Describe a wave.	It is created by wind blowing over a body of water's surface. The size of the waves depends on the speed of the wind and how far the wave can travel unobstructed.
12. Describe tides.	The rising and falling water levels of oceans, bays, gulfs, and part of many rivers caused by the forces of gravity between the Earth, the moon, and the sun. There are 2 lows and 2 highs in a 24 hour period.
13. Describe a current.	A body of water moving very quickly in a definite direction through surrounding waters that are moving more slowly. They are caused by wind patterns and differences in water density, temperature, and salinity. • They move in a circular motion. • They flows like a river through the ocean.
14. What is the Gulf Stream?	A powerful, warm, and quick moving ocean current flowing from the Gulf of Mexico at the tip of Florida along the coastline of the United States and then eastward across the North Atlantic.

15. Explain what happens as the depth of the ocean increases.	• The pressure increase. • The amount of light decreases. • The temperature decreases. • These factors affect plant and animal life.
16. What is salinity?	A measurement that describes the saltiness of the ocean.
17. What is density?	The amount of mass packed into a contained space.
18. What is depth	A measure of how deep a body of water is.
19. Why does salinity vary in different parts of the ocean?	• Rate of evaporation • Amount of runoff water from the land
5.6c) ecological characteristics:	
20. What is plankton?	• Microscopic organisms that live in the water. Plankton may be animal-like or plant-like.
21. What is the difference between phytoplankton and zooplankton?	• Animal-like plankton is called zooplankton. • Plant-like plankton is called phytoplankton. They carry out most of the photosynthesis on Earth and provide much of the world's oxygen.
22. State 3 factors that can affect where an organism lives.	Depth, salinity, & temperature
The Upper Levels of the Ocean:	
23. Describe the Tidal Zone.	**Location:** Along the shore **Organisms:** Mussels, crabs, and clams They must survive low tides that can leave them exposed to the sun and predators
24. Describe the Sunlight Zone.	**Location:** From the surface to 200m **Organisms:** Plants, algae, fish, & coral The sun's rays and nutrients in the water make this the area in the ocean where most of the ocean's fish live.
The Middle Levels of the Ocean:	
25. Describe the Twilight Zone.	**Location:** From 200m to 1,000m **Organisms:** Creatures like jellyfish that can glow in the dark There is not much sunlight here. Many animals swim up to the sunlight zone to eat after dark.
26. Describe the Midnight Zone.	**Location:** From 1,000m to 4,000m **Organisms:** Here, animals have adapted to the crushing water pressure. Sperm whales can dive this deep in search of food. The waters are pitch dark.
The Bottom Levels of the Ocean:	
27. Describe the Abyssal Zone.	**Location:** From 4,000m to 6,000m **Organisms**: There are very few signs of life, but tiny squid an other creatures live here Water temperatures are near zero degrees Celsius.
28. Describe the Trenches.	**Location:** The very deepest parts of the ocean **Organisms:** Not much life here- The food chain here does not depend on sunlight and plats, but bacteria that get their energy from chemicals