**The Ocean Floor Notes**

**The Blue Planet**

* Nearly \_\_\_\_\_\_\_\_ percent of the Earth is covered by the global ocean
	+ How much of the Earth is covered by land? \_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a science that studies all aspects of the world ocean.
	+ Which hemisphere is covered by more water? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Geography of the Oceans**

* The world ocean can be divided into four main ocean basins— \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Some argue there is a fifth ocean named the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* On the map below **label** the four oceans

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* Which ocean is the largest? \_\_\_\_\_\_\_\_\_\_\_\_\_
* Which ocean has the greatest depth? \_\_\_\_\_\_\_\_\_\_\_\_\_
* Place the oceans in order of size from largest to smallest:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ > \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ > \_\_\_\_\_\_\_\_\_\_\_\_\_\_ > \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Mapping the Ocean Floor**

* The topography of the ocean floor is as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the measurement of ocean depths and the charting of the shape or topography of the ocean floor.
* Today’s technology—particularly \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_— allows scientists to study the ocean floor in a more efficient and precise manner than ever before.
* **Sonar**
	+ Is an acronym for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ It is also known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Sonar works by transmitting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ **Label** the signals below



* **Satellites**
	+ Satellites are able to measure small differences by bouncing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Using this new technology, scientists have discovered that the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Differences in the height of the ocean surface are caused by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* **Submersibles**
	+ Submersibles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* + Today, many submersibles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ These remotely operated vehicles \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Ocean Floor Features**

* The ocean floor regions are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the zone of transition between a continent and the adjacent ocean basin floor.
* In the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, thick layers of undisturbed sediment cover the continental margin. This region \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* **Label** the continental margin on the diagram below:

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* In the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, oceanic crust plunges beneath continental crust. This force results in a narrow continental margin that experiences \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Why is there more activity at the Pacific Ocean continental margin vs the Atlantic?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the gently sloping submerged surface extending from the shoreline.
* Continental shelves contain important \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the steep gradient that leads to the deep-ocean floor and marks the seaward edge of the continental shelf.
* A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the gently sloping surface at the base of the continental slope.
* The\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the area of the deep-ocean floor between the continental margin and the oceanic ridge.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form at the sites of plate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ where one moving plate descends beneath another and plunges back into the mantle.
	+ When one plate moves beneath another it is called? \_\_\_\_\_\_\_\_\_\_\_\_\_
* An\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a very level area of the deep-ocean floor, usually lying at the foot of the continental rise.
* The sediments that make up abyssal plains are carried there by turbidity currents or are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an isolated volcanic peak that rises at least 1000 meters above the deep-ocean floor, and a guyot is an eroded, submerged seamount.
* A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is found near the center of most ocean basins. It is an interconnected system of underwater mountains that have developed on newly formed ocean crust.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the process by which plate tectonics produces new oceanic lithosphere at ocean ridges.
* New ocean floor is formed at mid-ocean ridges as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form along mid-ocean ridges. These are zones where \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

In the diagram below label the features you recognize:



**Energy Resources**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are the main energy products currently being obtained from the ocean floor.
* Gas Hydrates
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Most oceanic gas hydrates are created when \_\_\_\_\_\_\_\_\_\_ break down organic matter in ocean-floor sediments.
* Sand and Gravel
	+ The offshore sand-and-gravel industry is second in economic value only to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Manganeese Nodules
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Evaporative Salts
	+ When seawater evaporates, the salt increases in concentration until it can no longer remain dissolved. When the concentration becomes high enough, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + The most economically important salt is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.