OCEAN FLOOR

SOL 5.6

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CSES

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Oceanography is the study of the seas and oceans. Oceanographers study the physical, chemical, and biological characteristics of the seas and oceans.

For most of history, the oceans have been a source of mystery. People gathered information about its surface, life in shallow waters, and some features of the ocean floor. Only recently, have oceanographers been able to get a good look at the ocean floor.

What they have found may surprise you!

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The ocean floor is not flat and featureless. Oceanographers have found underwater mountains that are taller than the tallest mountain on land. There are underwater valleys and trenches that closely resemble features of the land. Oceanographers have found underwater volcanoes.

Life has been found everywhere in the ocean, from its surface to the deepest parts of the ocean floor.

The method of using sound to measure depth or to find objects in the water is called sonar. Oceanographers use sonar to map the ocean floor.

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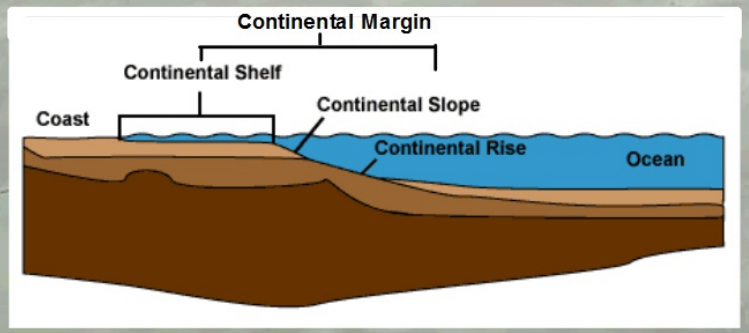
Continental Shelf - the gently sloping edge of a continent covered by ocean water. Generally, the water is not deeper than 200 meters. It extends to the continental slope. It is made of the same rock as the continent. It is here that people swim, fish, surf, and sail. The shelf also contains many resources, such as oil and gas. There is also abundant plant and animal life here.



Continental Slope - a steep slope of the ocean floor between the continental shelf and the continental rise.

Continental Rise - a gentle slope of the ocean floor made of sediment located between the steep continental slope and flat abyssal plain.

Continental Margin - the region of the ocean floor between the coast and the sudden drop-oft to the deep ocean floor; includes the continental shelf, rise, and slope.

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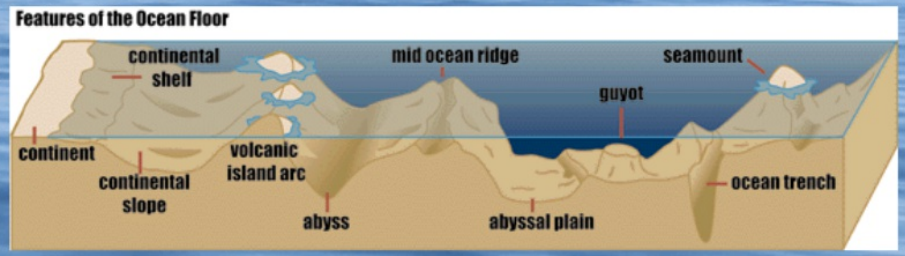
Beyond the continental margin, lies the ocean basin floor- a somewhat flat area of the ocean floor. The abyssal plain is the general term used to describe the flat, sediment-covered plains of the ocean floor. The ocean basin also contains the mid-ocean ridge, trenches, seamounts, underwater volcanoes, and other features.



abyssal plain - somewhat flat plains on the ocean floor

mid-ocean ridge - an underwater, volcanic mountain chain on an ocean floor that rises higher than surrounding deep ocean basins.

trenches - deep, narrow valleys in the sea floor. The deepest spot in the ocean is 36,183 feet below sea level. It is Challenger Deep and is located in the Marianas Trench in the Pacific Ocean.

volcanic island - begins as a seamount and then rises above the ocean as melted rock accumulates

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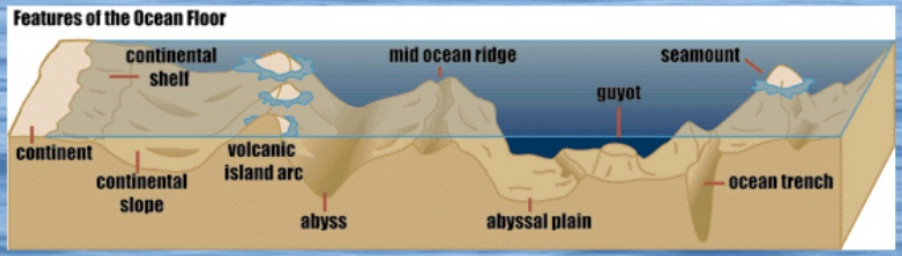

rift valley - *a valley in the mid-ocean ridge*

seamount - *a mountain below the waves*

guyot - *an flat seamount*

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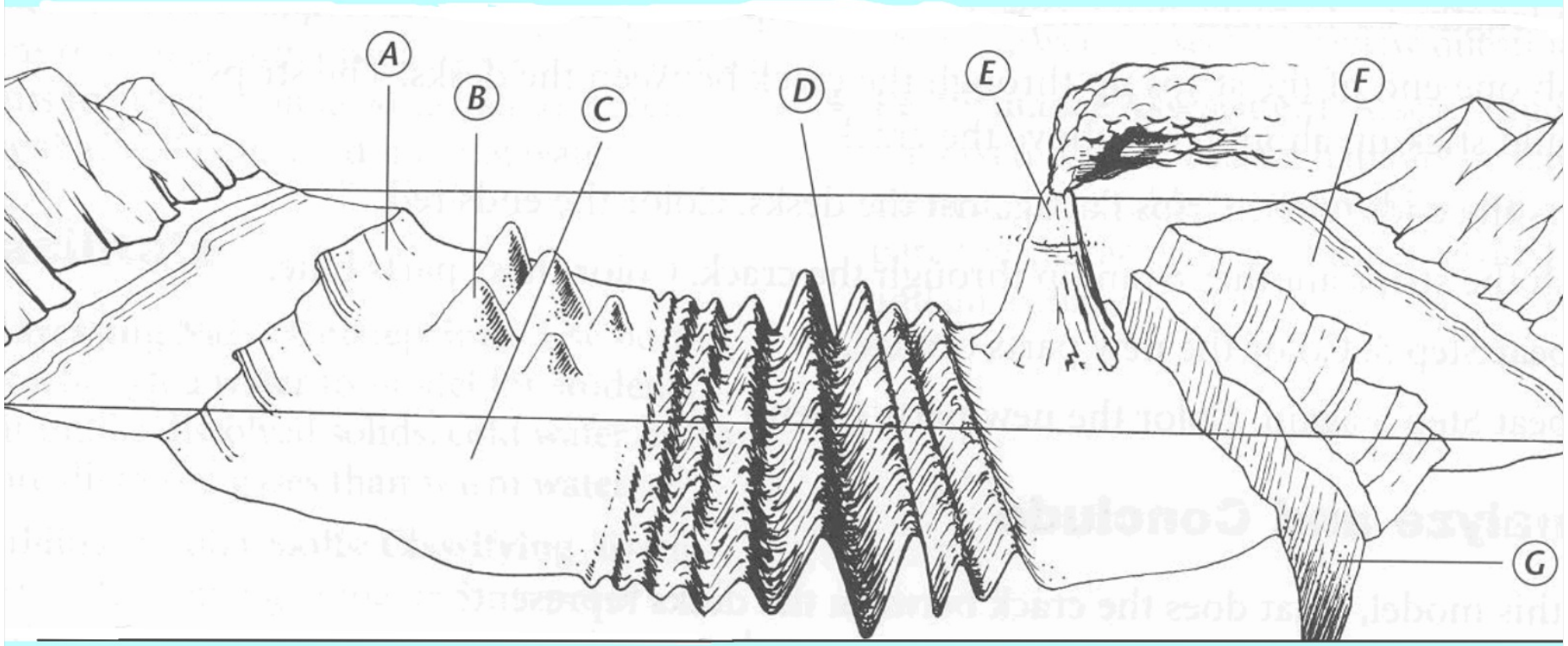
Thermal vents are fountains of very hot water that shoot out of the ocean floor. They are also called hot spots. The heat from thermal vents comes from inside the earth. Animals live near thermal vents to use the heat and chemicals that spew from them. The heat and chemicals help keep the animals alive.

THE OCEAN FLOOR



A - continental slope
B - sea mounts
C - abyssal plain
D - mid-ocean ridge
E - volcanic islana
F - continental shelt
G - trench

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The gently sloping edge of a continent where people swim is

A. Continental slope
B. Continental rise
C. Continental shelf
D. Continental margin

The region of the ocean floor between the coast and sudden drop off. It contains the continental shelf, rise, and slope.

A. Midocean ridge
B. Rift valley
C. Ocean basin
D. Continental margin

The steep slope of the ocean floor between the continental shelf and rise

A. Continental slope
B. Ocean Basin
C. Rift valley
D. Trench

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The deep, somewhat flat parts of the ocean basin

A. Midocean ridge
B. Continental shelf
C. Abyssal plain
D. Rift valley

[redacted]

An underwater, volcanic mountain range on the ocean floor

A. Midocean ridge
B. Rift valley
C. Ocean basin
D. Continental margin

[redacted]

The deepest part of the ocean floor

A. Continental slope
B. Ocean Basin
C. Rift valley
D. Trench

[redacted]

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The area between the continental slope and the abyssal plain.

A. Ocean basin
B. Continental rise
C. Continental shelf
D. Continental margin

[redacted]

A mountain below the ocean

A. Midocean ridge
B. Rift valley
C. Ocean basin
D. Seamount

[redacted]

This area of the ocean floor includes the abyssal plain, midocean ridge, mountains, and valleys

A. Continental slope
B. Ocean basin
C. Continental margin
D. Trench

[redacted]

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Fountains that shoot hot water out of the ocean floor

A. Trenches
B. Midocean ridge
C. Thermal vents
D. Seamount

[redacted]

Which gets deeper faster?

A. The water above the continental shelf
B. The water above the continental slope

[redacted]

The sonar readings become shorter as your ship crosses part of the ocean. What can you conclude about the ocean floor below you?

A. The ocean is getting shallower.
B. The ocean is getting deeper.
C. There is no change in the ocean floor.

[redacted]

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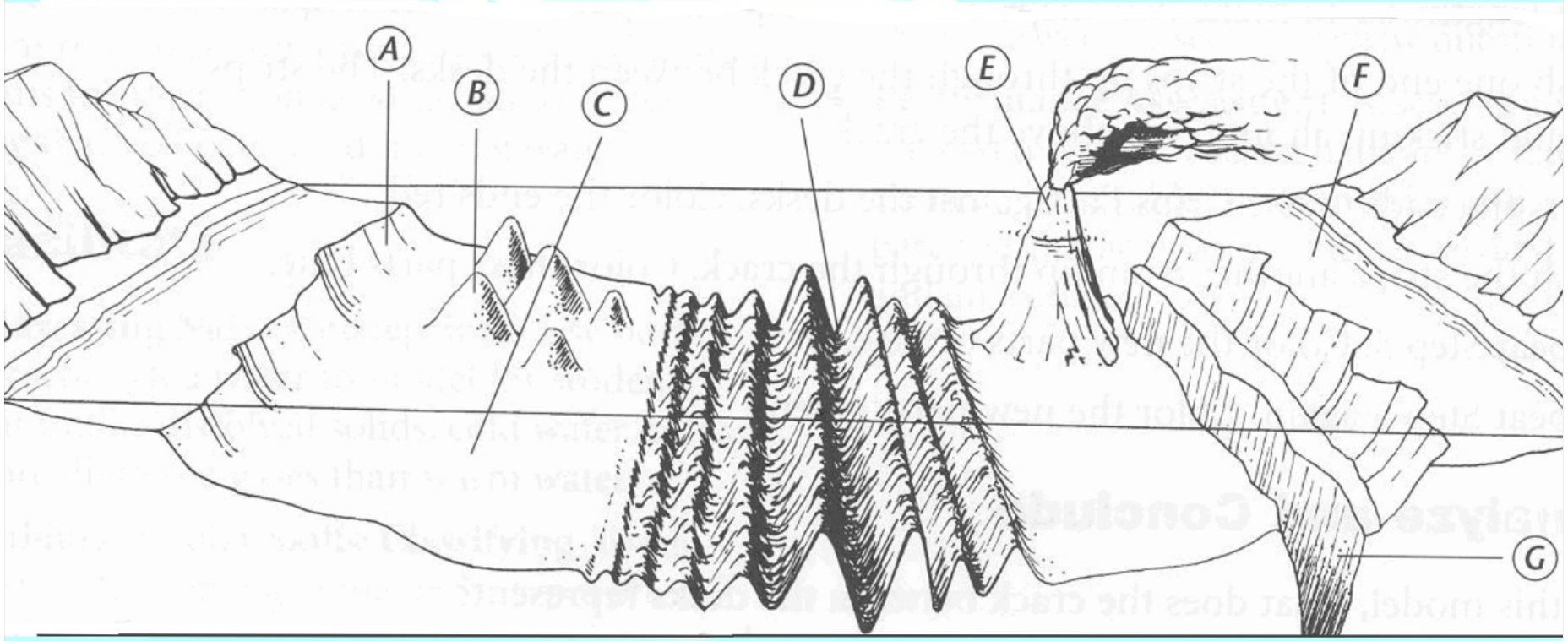
Drag the labels to their corresponding letter.

abyssal plain *sea mounts* *volcanic islana* *mid-ocean ridge*
continental slope *continental shelt* *trench*



A - *B -* *C -*

D - *E -* *F -*

G -

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