

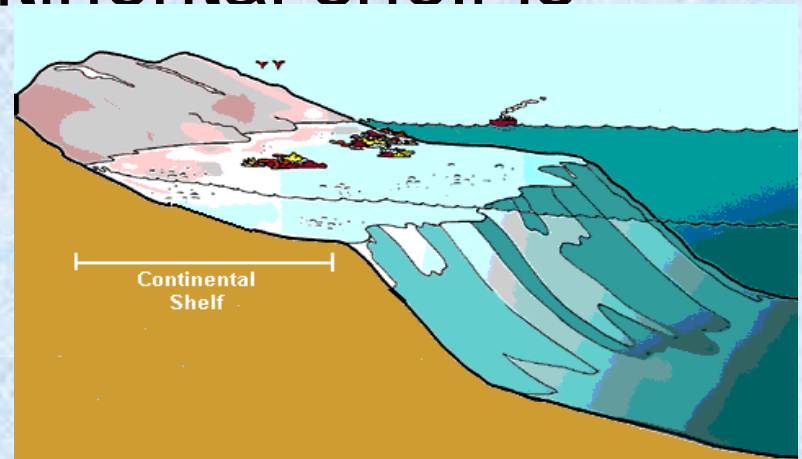
Landforms of the Ocean

What Can You Find Down There?

- The ocean floor contains all of the geographic features that can be found on the continents: Mountains, volcanoes, plains, valleys, and canyons.
- These underwater landforms are many times taller, deeper, longer, and wider than those on dry land.

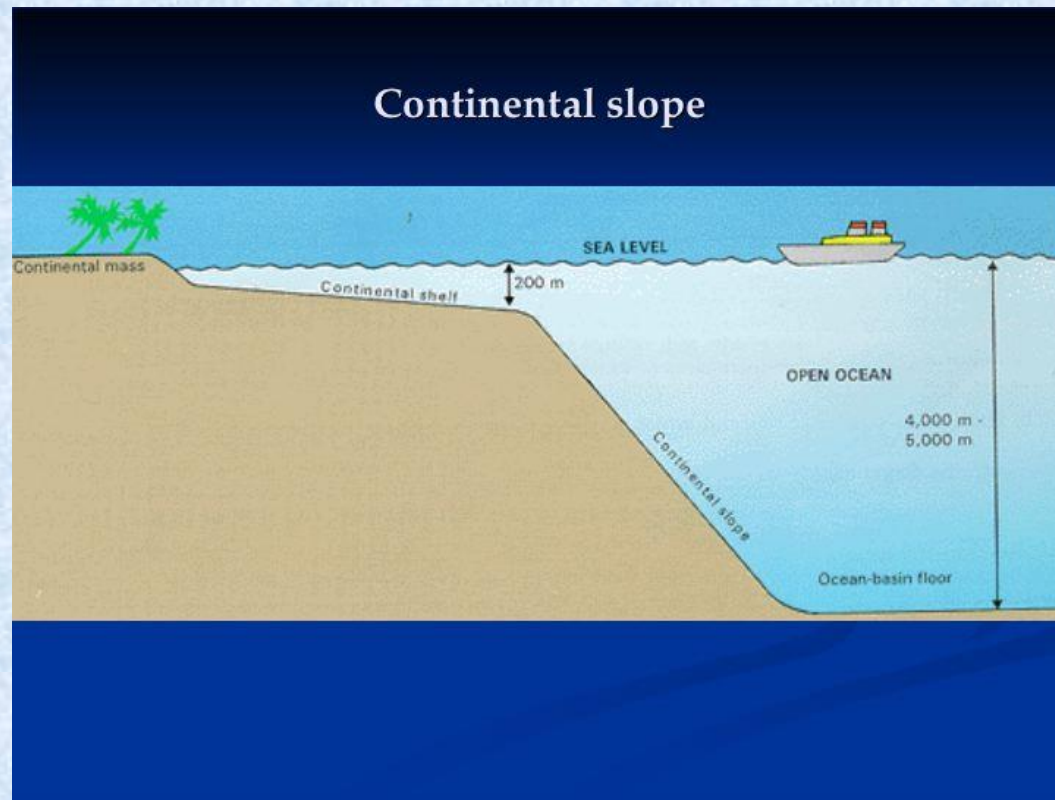
Continental Shelf

- The edges of the continents slopes down from the shore into the ocean.
- The part of the continent located under the water is known as the *continental shelf*.
- The width of the continental shelf varies around the edges of the continents.
- In some places, the continental shelf is fairly shallow and in other places it becomes very deep.



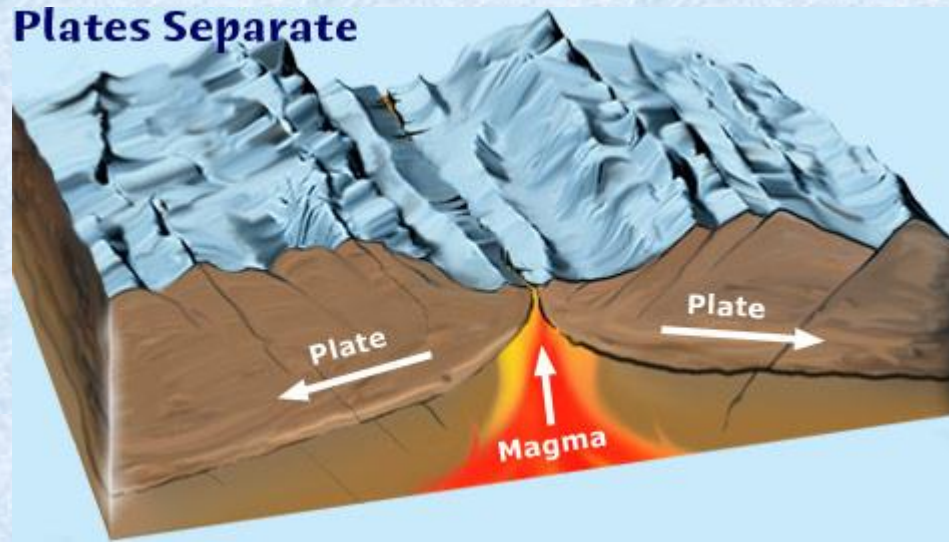
Continental Slope

- The steep slope where the continental shelf drops to the bottom of the ocean floor is called the *continental slope*.
- The ocean becomes very deep here.

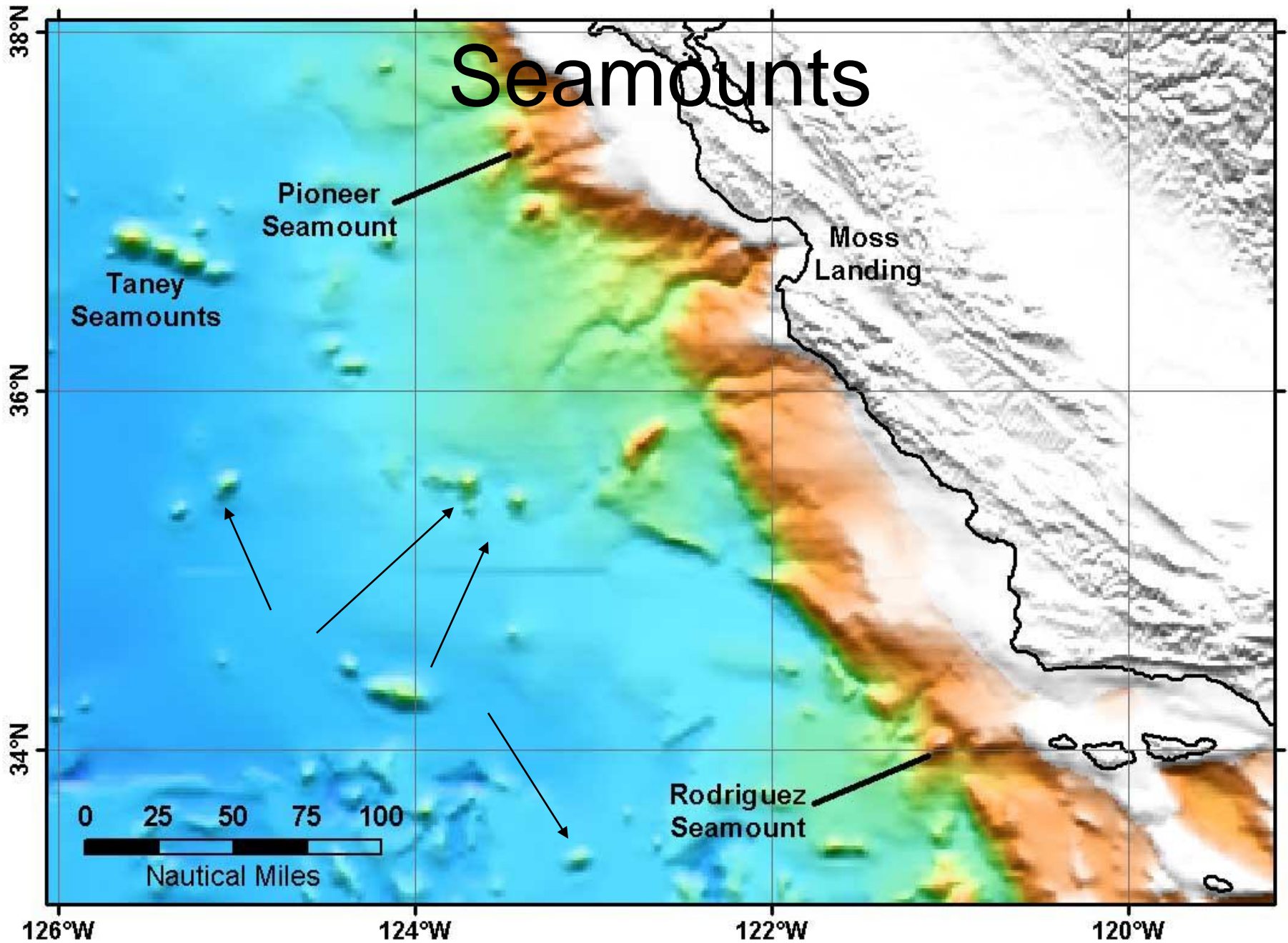


Mid-Ocean Ridge

- The largest mountain range on Earth.
- It divides the ocean floor into two parts.
- Made by volcanoes
- Those volcanic mountains that are not formed on the mid-ocean ridge (and do not break the surface of the ocean) are called *seamounts*. See the next slide to view some!

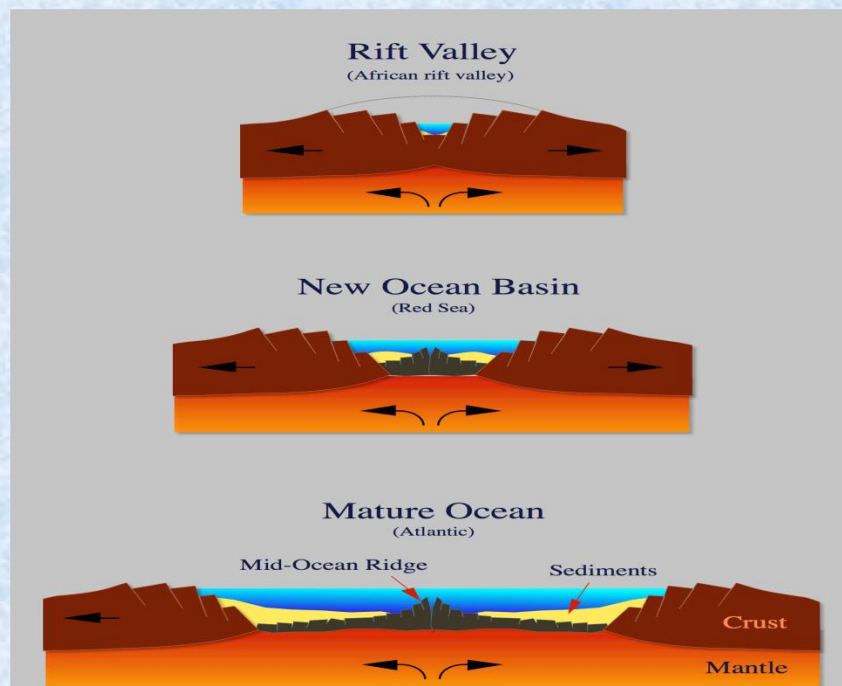


Seamounts



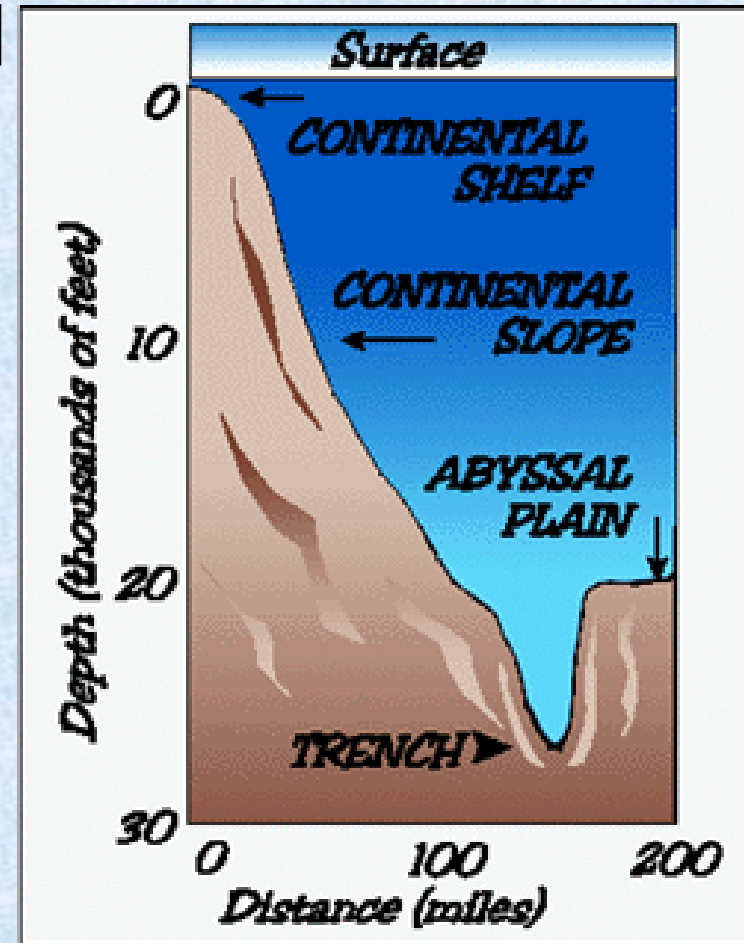
Rift Zone

- In the center of the highest part of the mid-ocean ridge is a narrow trench called a *rift*.
- Underwater volcanic activity that adds mountains to either side of the mid-ocean ridge occurs at the *rift zone*.



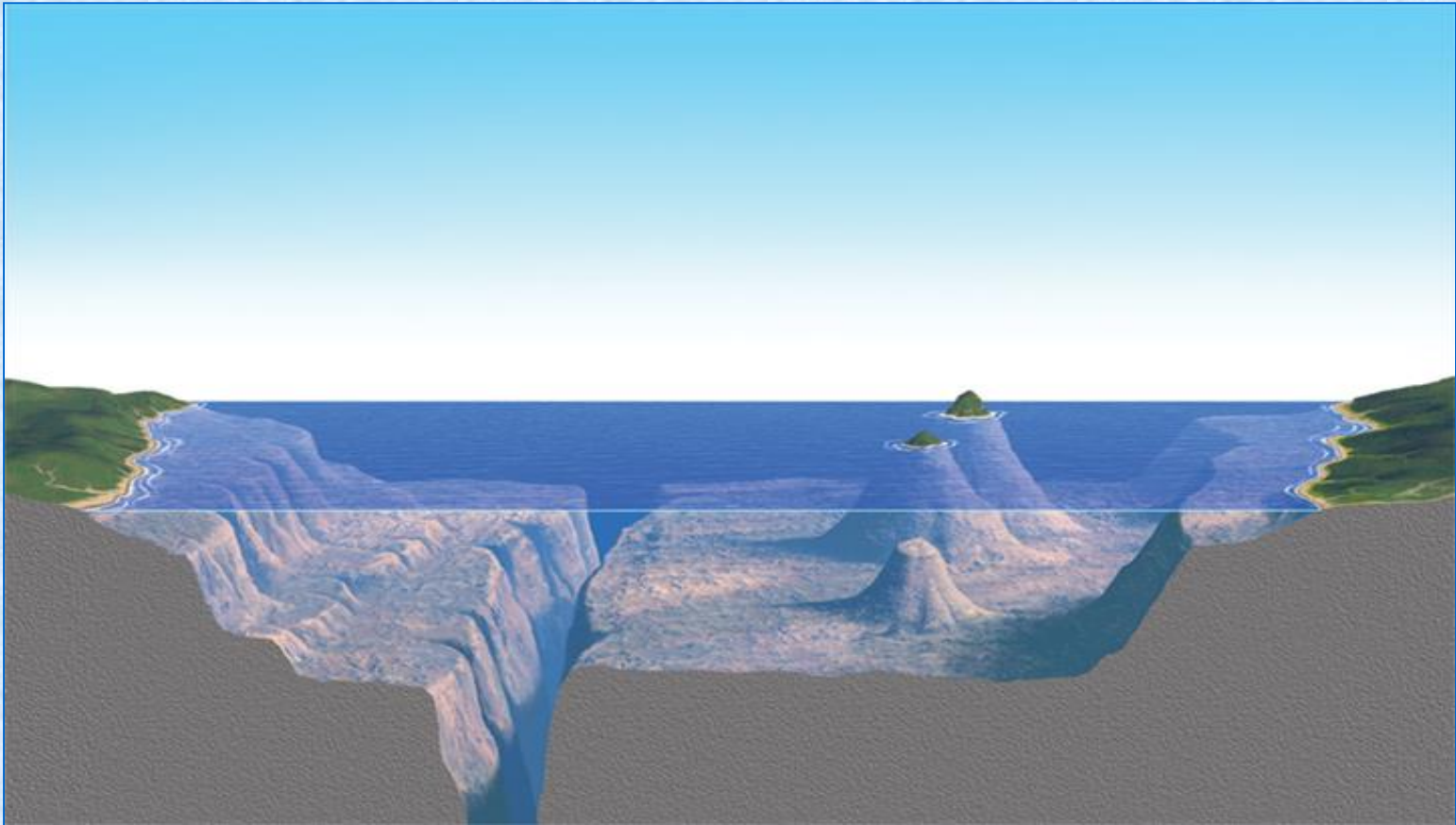
Trench

- There are many steep-sided canyons and deep, narrow valleys in the bottom of the ocean.
- Ocean trenches are the deepest part of the ocean basin and are deeper than any valley found on land.

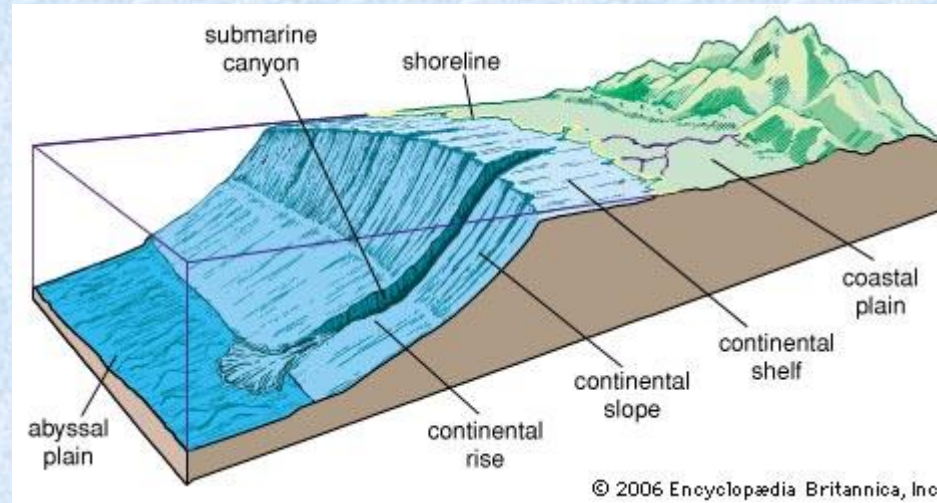


Ocean Basin

- Located on either side of the mid-ocean ridge is the *ocean basin*.
- It is made up of low hills and flat plains.



Abyssal Plain



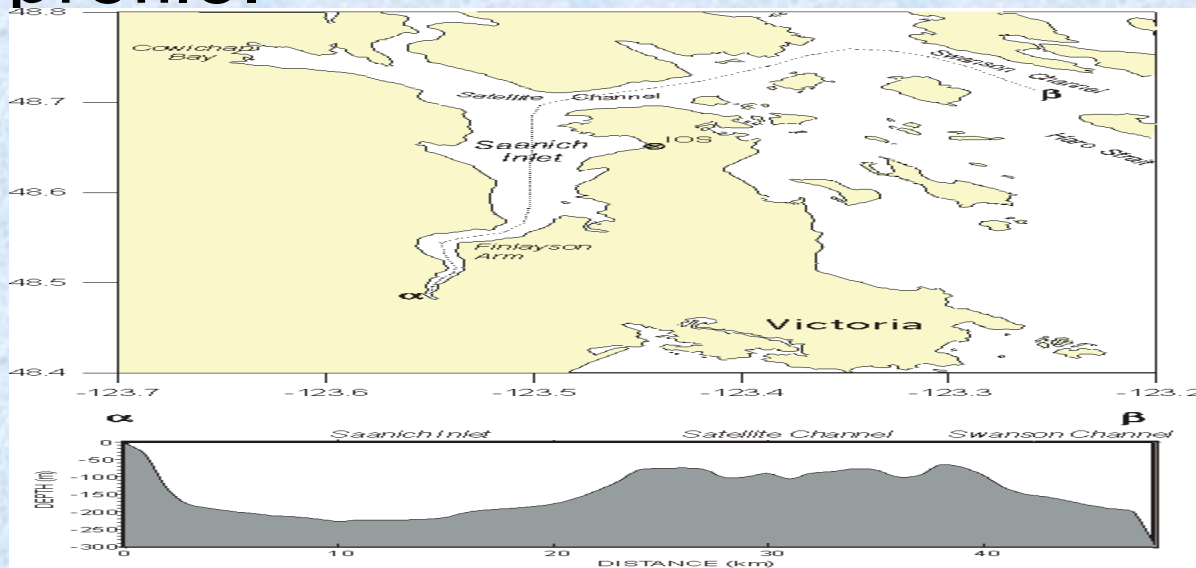
- The flat area of the ocean basin is called the *abyssal plain*.
- Seamounts are generally formed on the ocean basin.

How do scientist know the landforms are there?

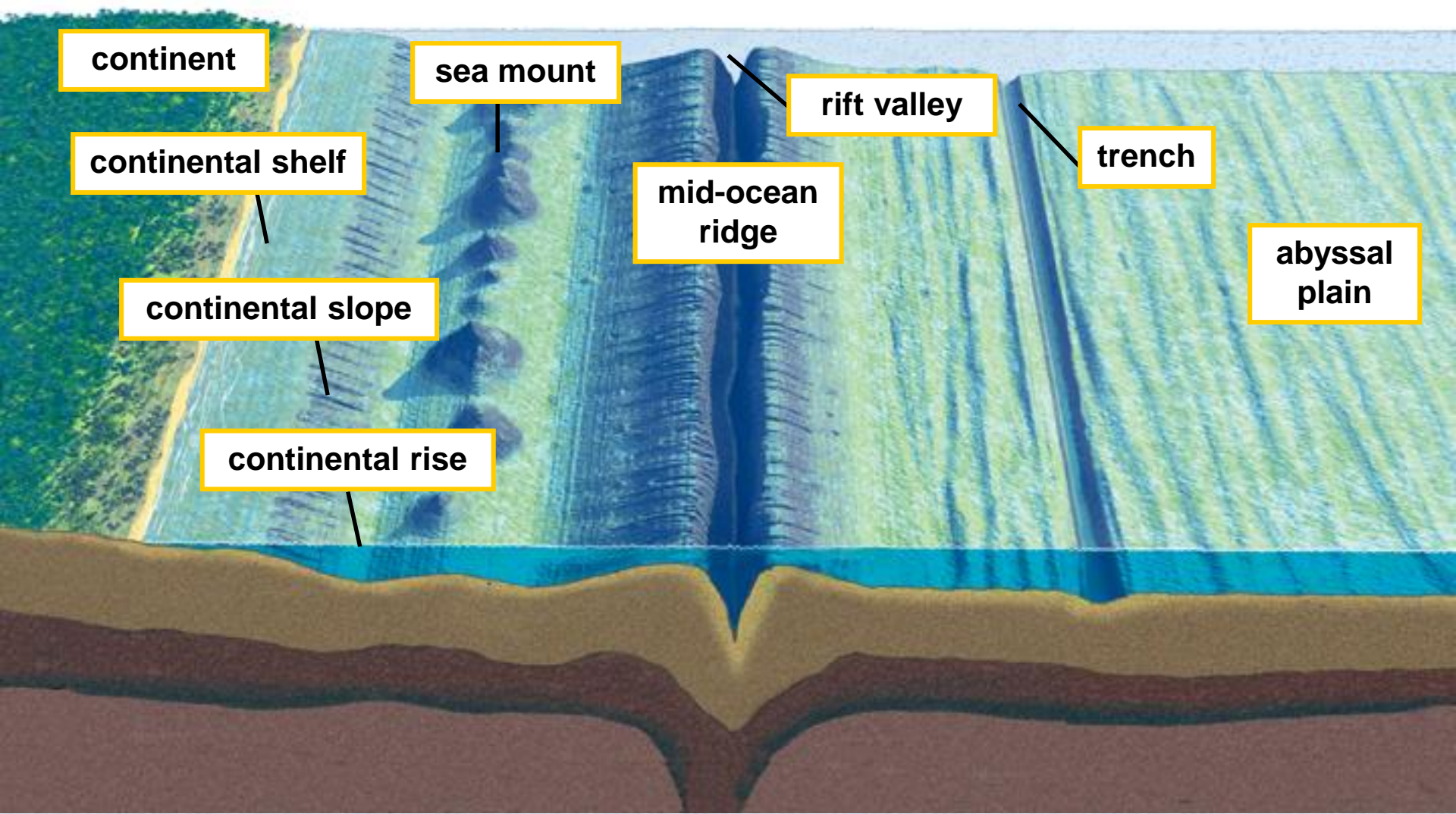
- Maps of the ocean floor are created by collecting and plotting depth measurements.
- Depth measurements are taken by *sonar*.
- Sonar are sound waves that are sent from the ocean surface to the ocean floor. The amount of time it takes for the sound to travel down and back is one depth measurement.

How do scientist know the landforms are there?

- Variations in depth are used to infer or explain elevations and depression in the ocean floor.
- Depth measurements compiled together make a depth profile.



What are the features of the ocean floor?



Can you name the landforms of the ocean floor?

