

Ocean Features





Our AMAZING Oceans

Area: 140 million square miles (71% of the surface of earth)

Average depth: 12,200 feet

Deepest point: 36,198 feet in the Marianas Trench on western side of South America

The **ocean ridges form a great mountain range**, almost 40,000 miles

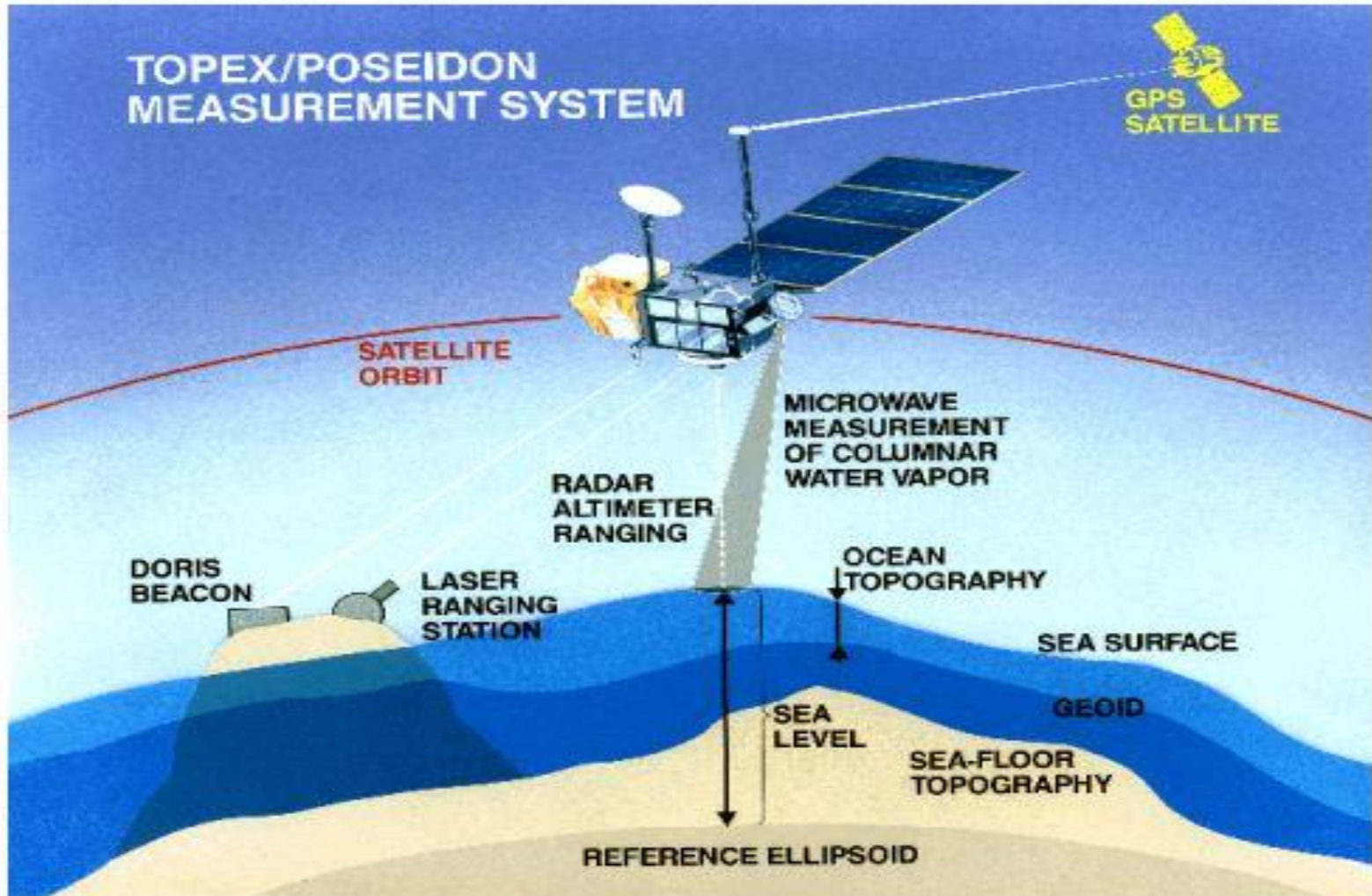
Highest Mountain: Mauna Kea, Hawaii, rises 33,474 feet from its base on the ocean floor; only 13,680 feet are above sea level.

Sound Navigation and Ranging

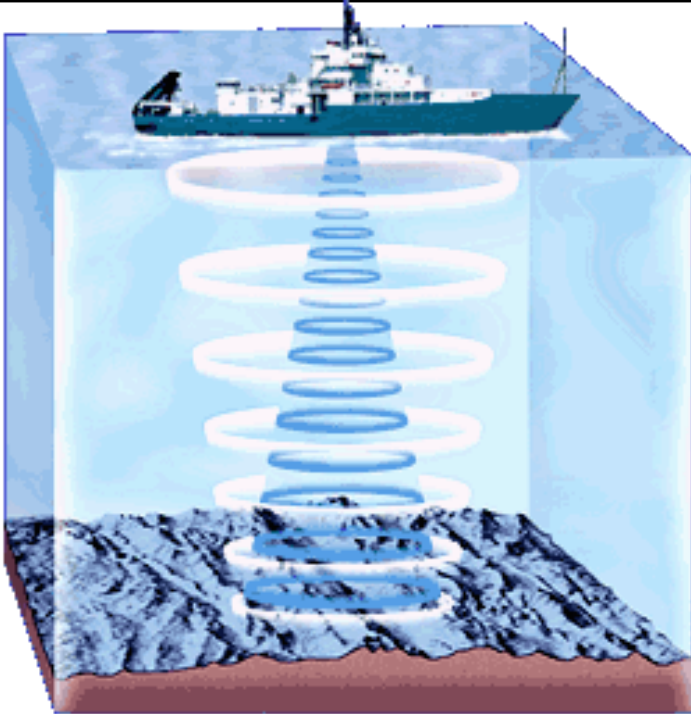
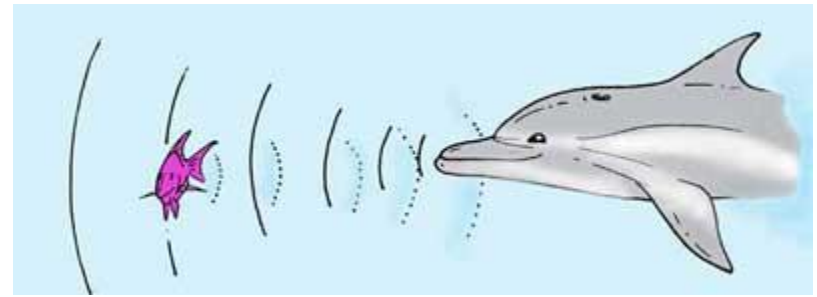
A. SONAR



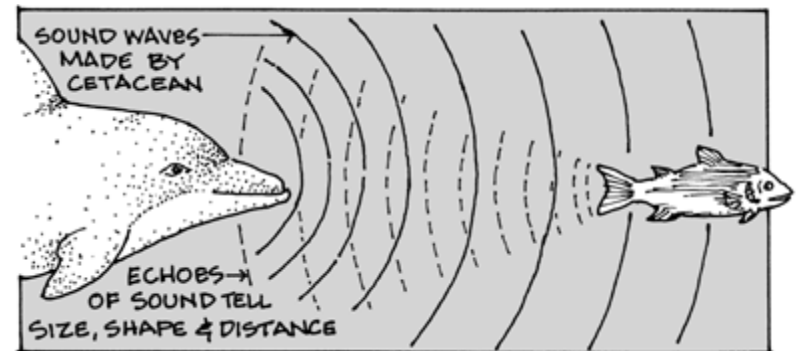
B. Satellites: provide great range and speed in collecting data



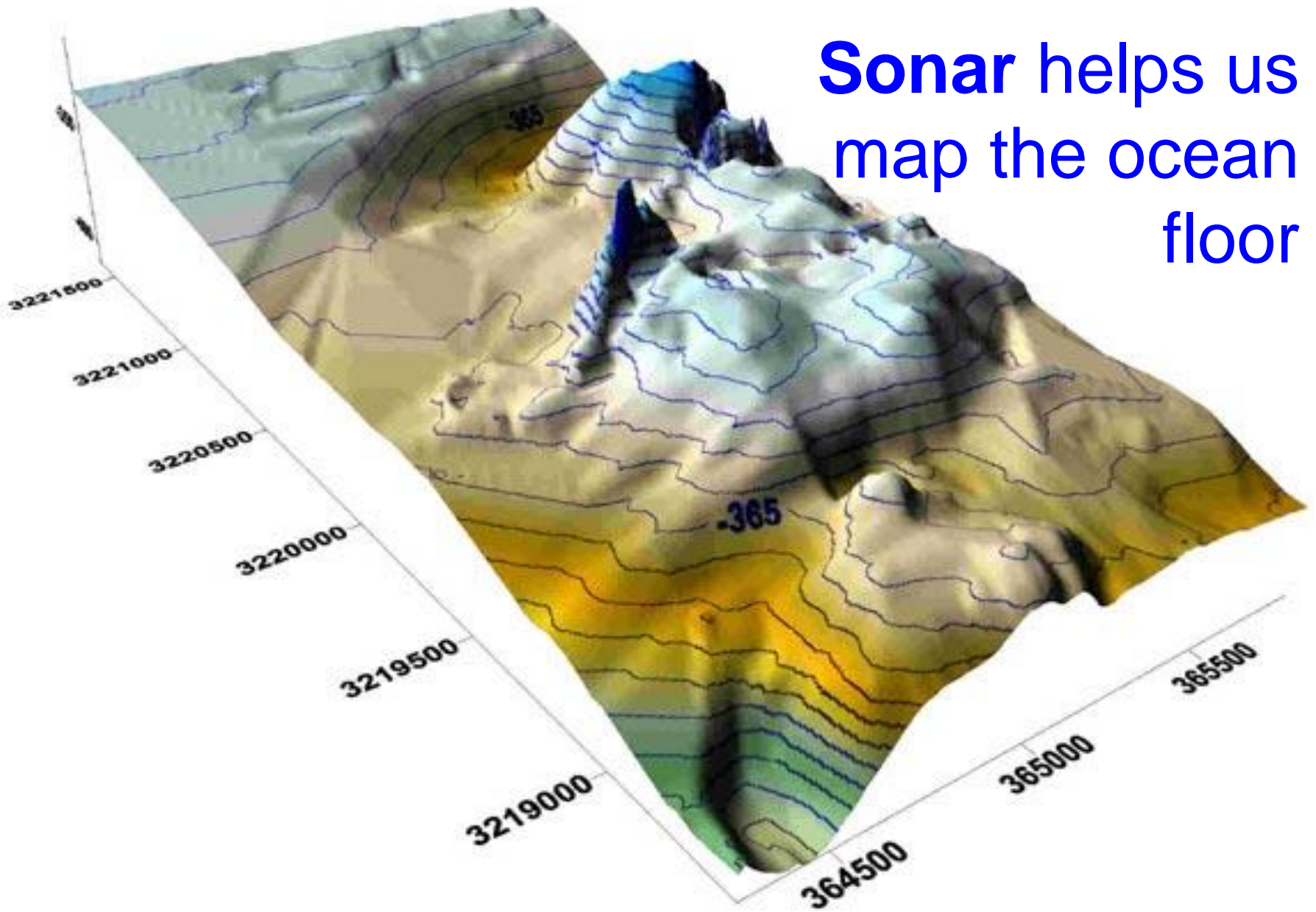
C. Echo Sounding



- Shapes can be determined by measuring the time it takes for the sound to “bounce back”
- Some marine life also uses this method.

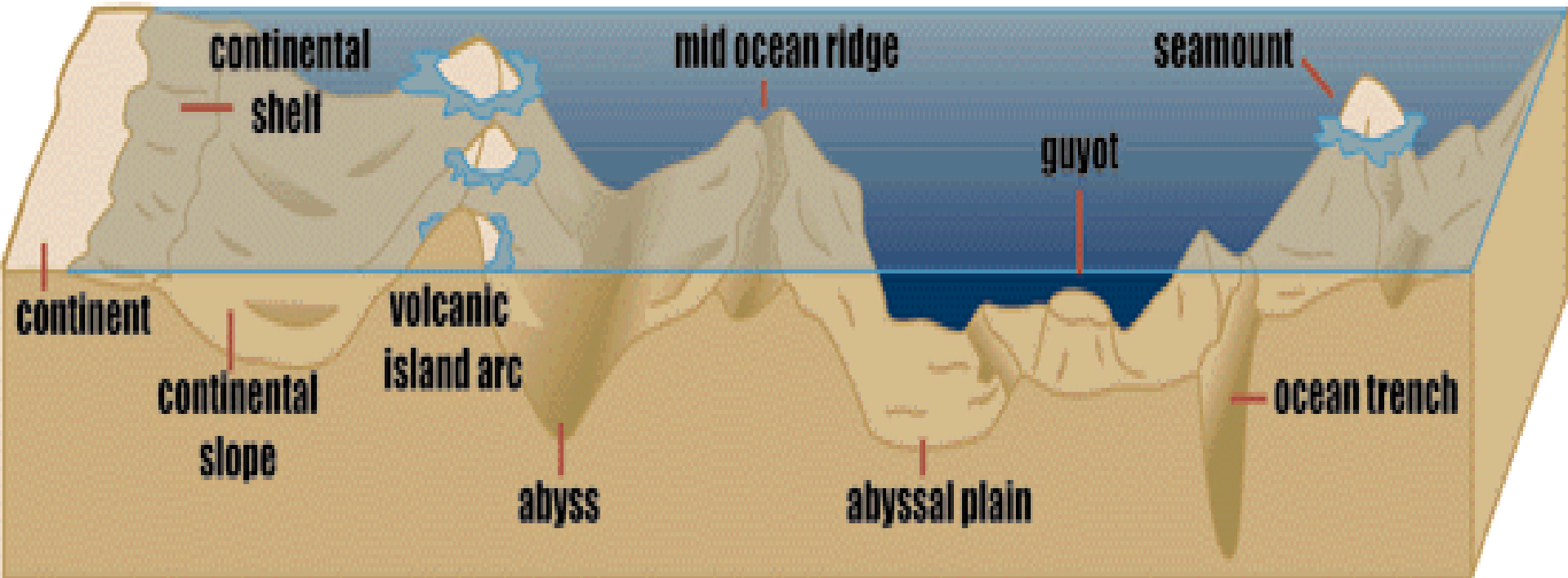


**Sonar helps us
map the ocean
floor**



Features of the Ocean Floor

Features of the Ocean Floor



- What is the deepest place in our oceans?
- What type of plate boundary makes deep oceanic trenches?
- Where is the sediment carried by rivers deposited in our oceans?
- What type of plate boundary is located at mid-ocean ridges?
- How does Earth's climate effect sea levels?

Seafloor

Continental Shelf

Submarine Canyon

Continental Slope

Continental Rise

Transform Fault

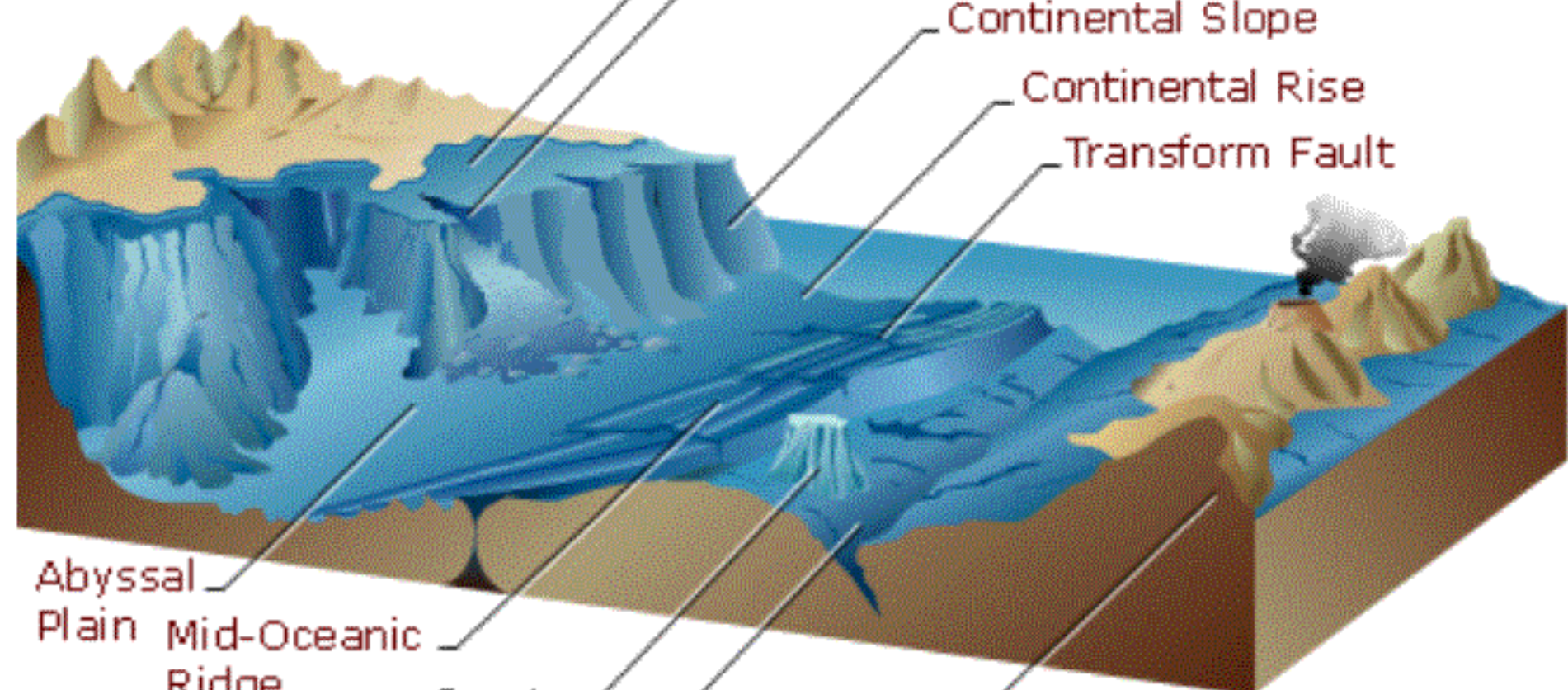
Abyssal Plain

Mid-Oceanic Ridge

Guyot

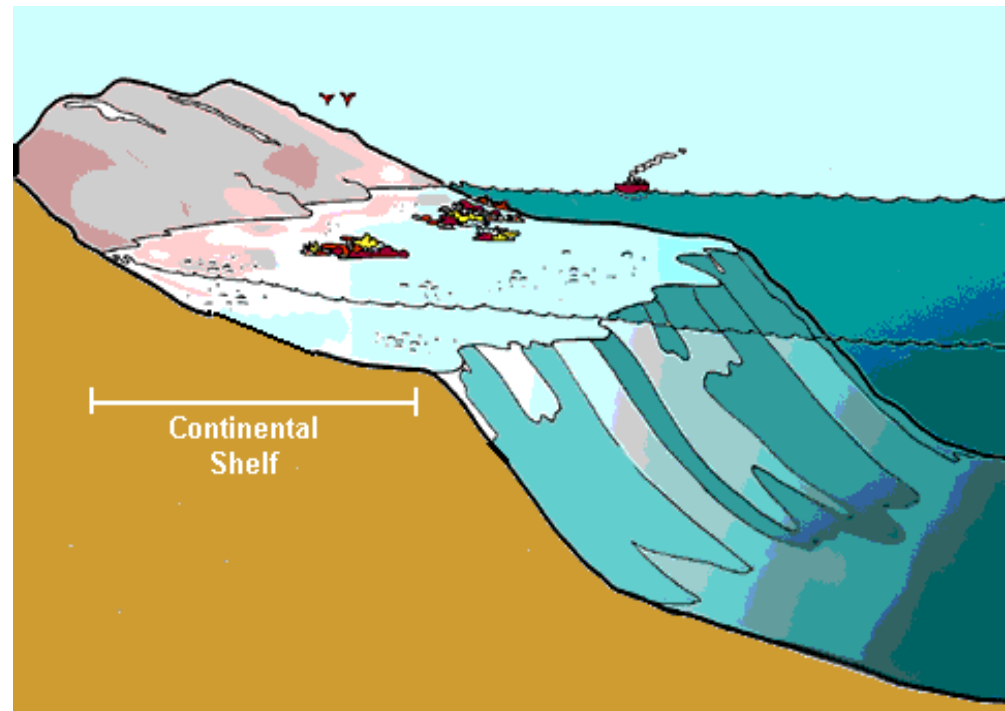
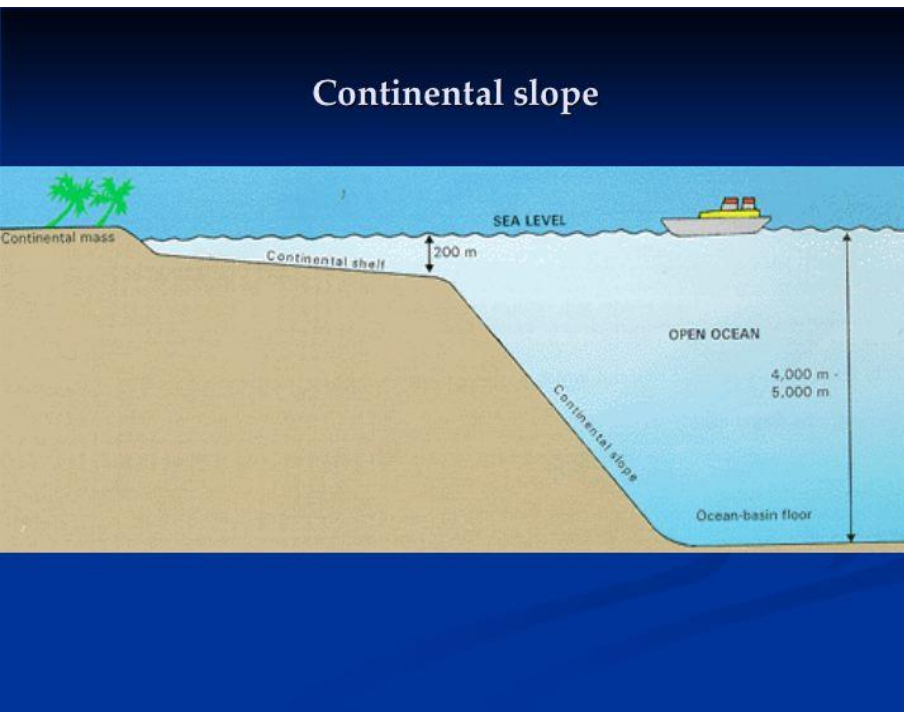
Trench

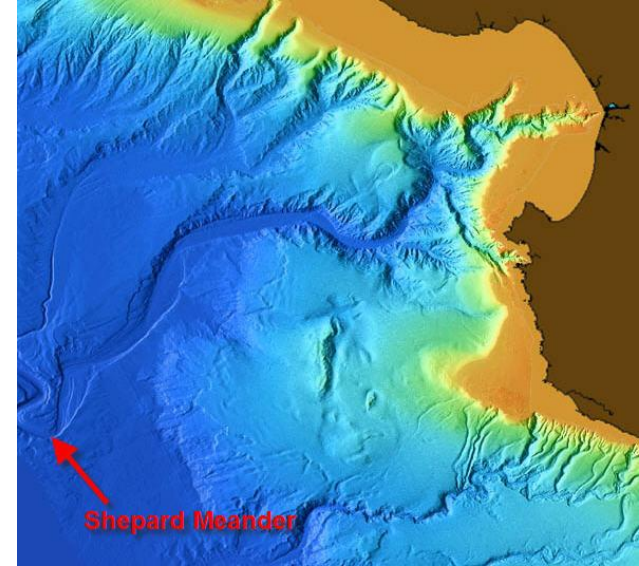
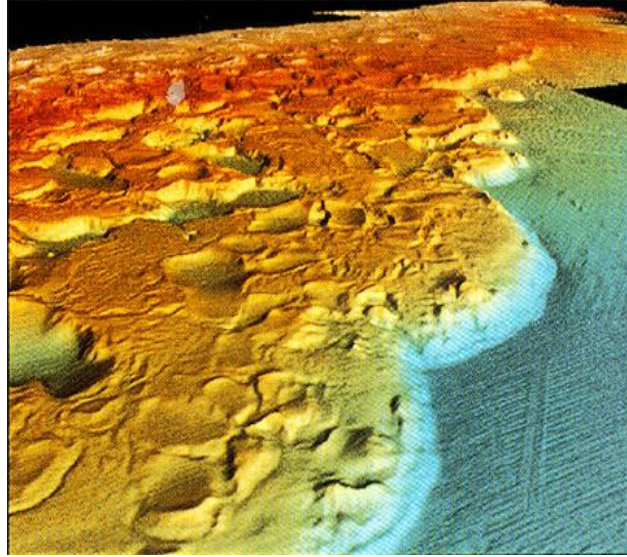
Seamount



1. Continental Margin- Made up of the continental shelf, slope, and rise. This is where the continent drops off to meet the ocean crust.

2. Continental Shelf- gently sloping edge of the continent. Ocean is shallow on the shelf.





3. Continental Slope- the steep drop-off at the edge of a continent.

4. Continental Rise- where sediment builds up at the bottom of the continental slope.

5. Abyssal Plain- relative smooth plains on the ocean floor. Ocean level is deep in these areas.

6. Mid-ocean Ridges- chains of volcanic mountains that run through the middle of the oceans.

7. Rift Valleys- low valleys in the middle of mid-ocean ridges where two ocean plates are pulled apart.

8. Trench- the deepest places in the ocean. They form from one crustal plate plunging under another.

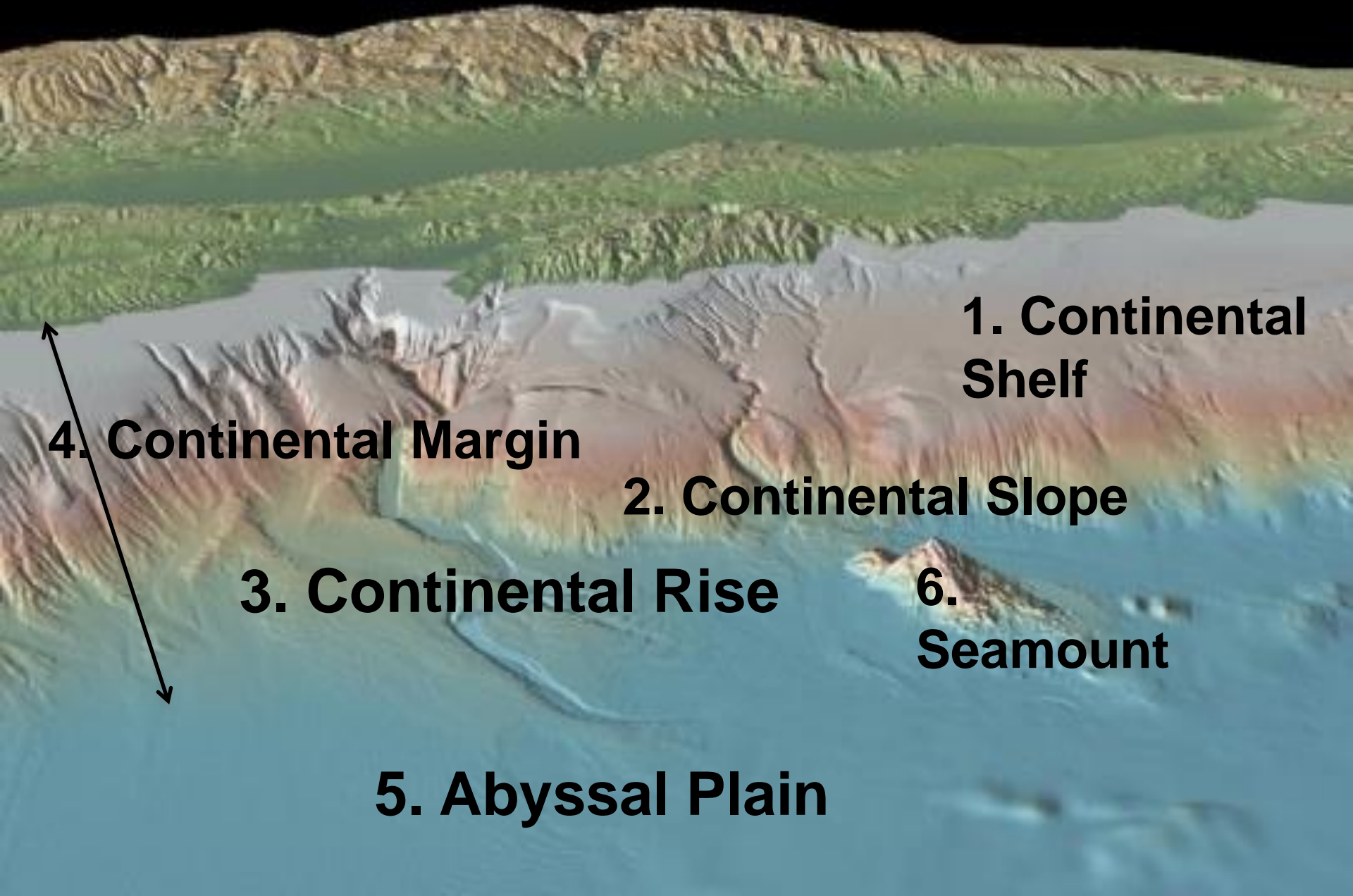
9. Seamount- An underwater volcanic mountain

10. Guyot- An underwater plateau that has sunk beneath the ocean's surface. Originally formed from volcanic activity, it's top has been flattened from wave action.

Identify the numbered ocean features



Identify the numbered ocean features



1. Continental Shelf

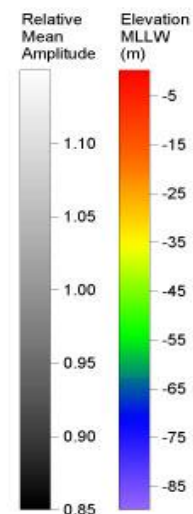
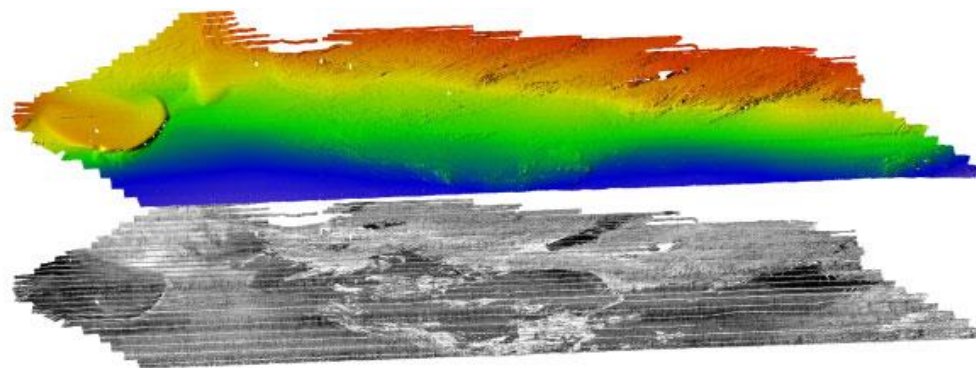
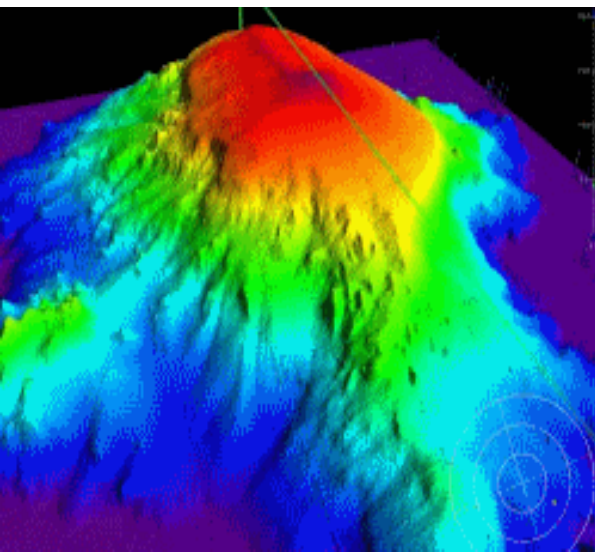
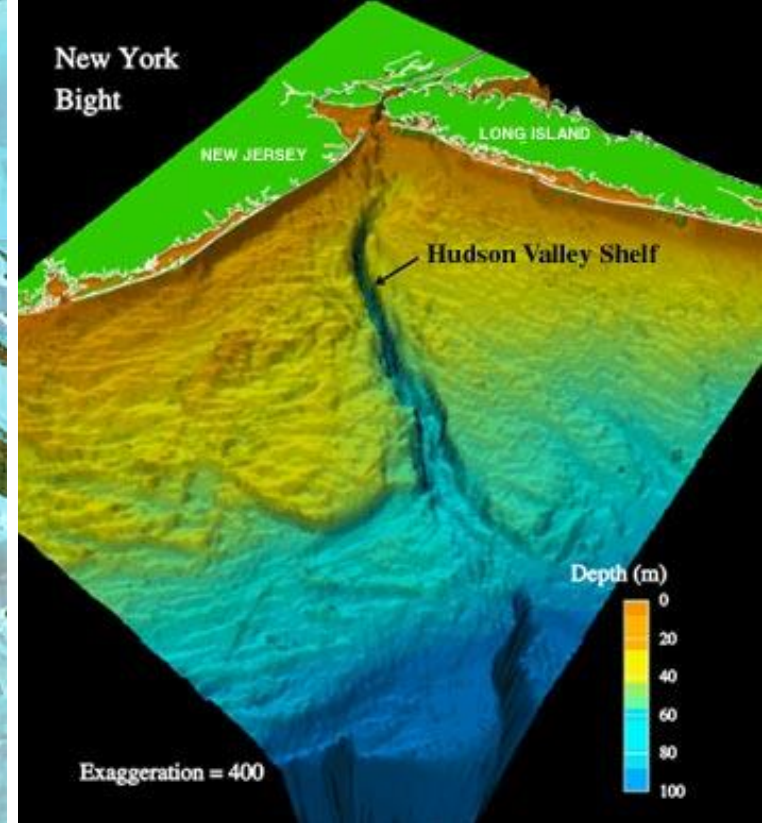
4. Continental Margin

2. Continental Slope

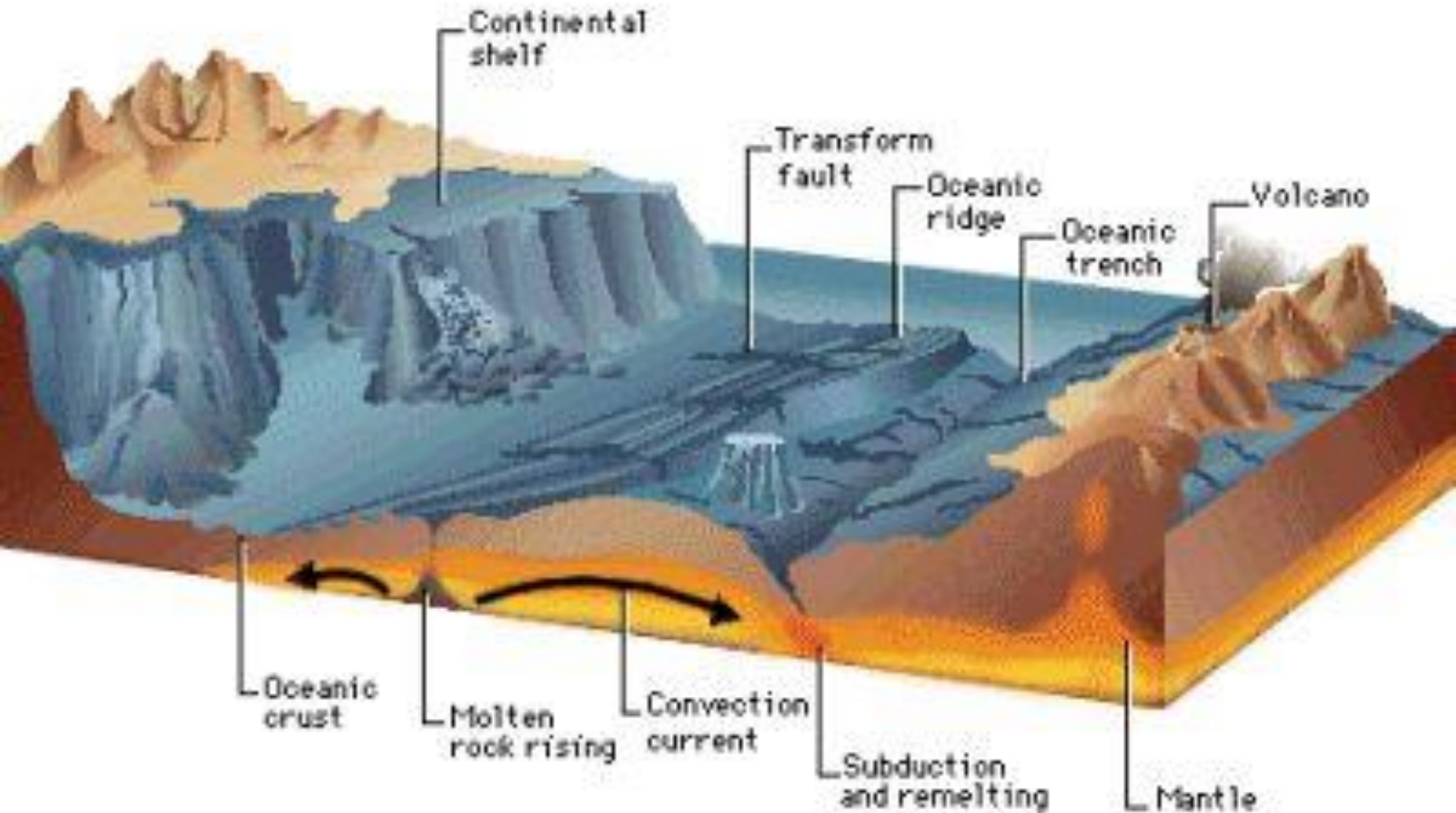
3. Continental Rise

6. Seamount

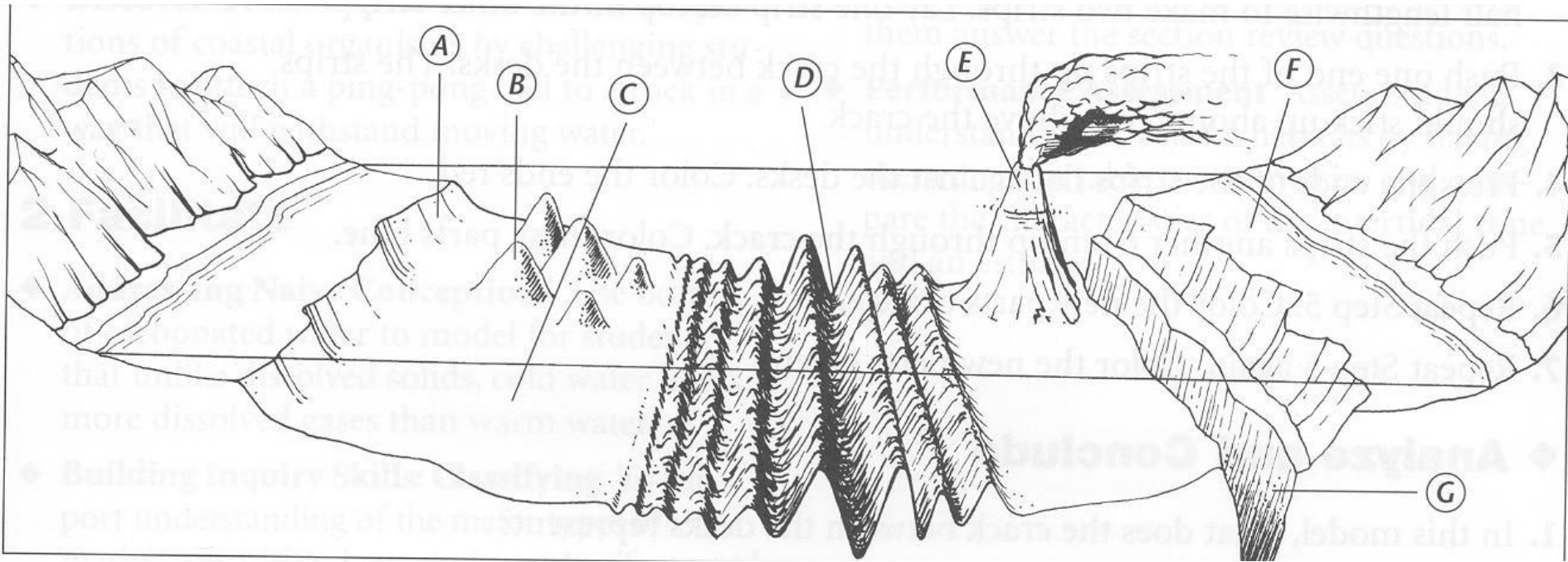
5. Abyssal Plain



How Plate Tectonic Shape the Ocean Floor



Identify the Features



Ocean Zones

-Each ocean zone is unique in the life forms it supports.

As you go deeper in the ocean, the **water pressure increases**

As you go deeper in the ocean, **temperature decreases**

