

8<sup>th</sup> grade Notes Week 30  
Day 2

# **Key Ideas/words**

**Rift zone/valley-** area where plates are moving away from each other. This is when it happens on land

**Deep Ocean Trench-** happens in the ocean. It is a subduction zone that is in the Earth's crust

## Key Ideas/words

**Mid-Ocean Ridge-** an elevation that occurs in the middle of the ocean (divergent boundary)

**Subduction-** when a plate goes **UNDER** another plate. Crust is destroyed (convergent boundary)

**Sea-floor spreading-** area of the sea-floor that is “growing”. Crust is created (divergent boundary)

# Theory of Plate Tectonics

C-notes

**The theory of Plate  
Tectonics explains  
HOW continental drift  
occurs.**

**What evidence is there  
that the plates are  
moving....?**

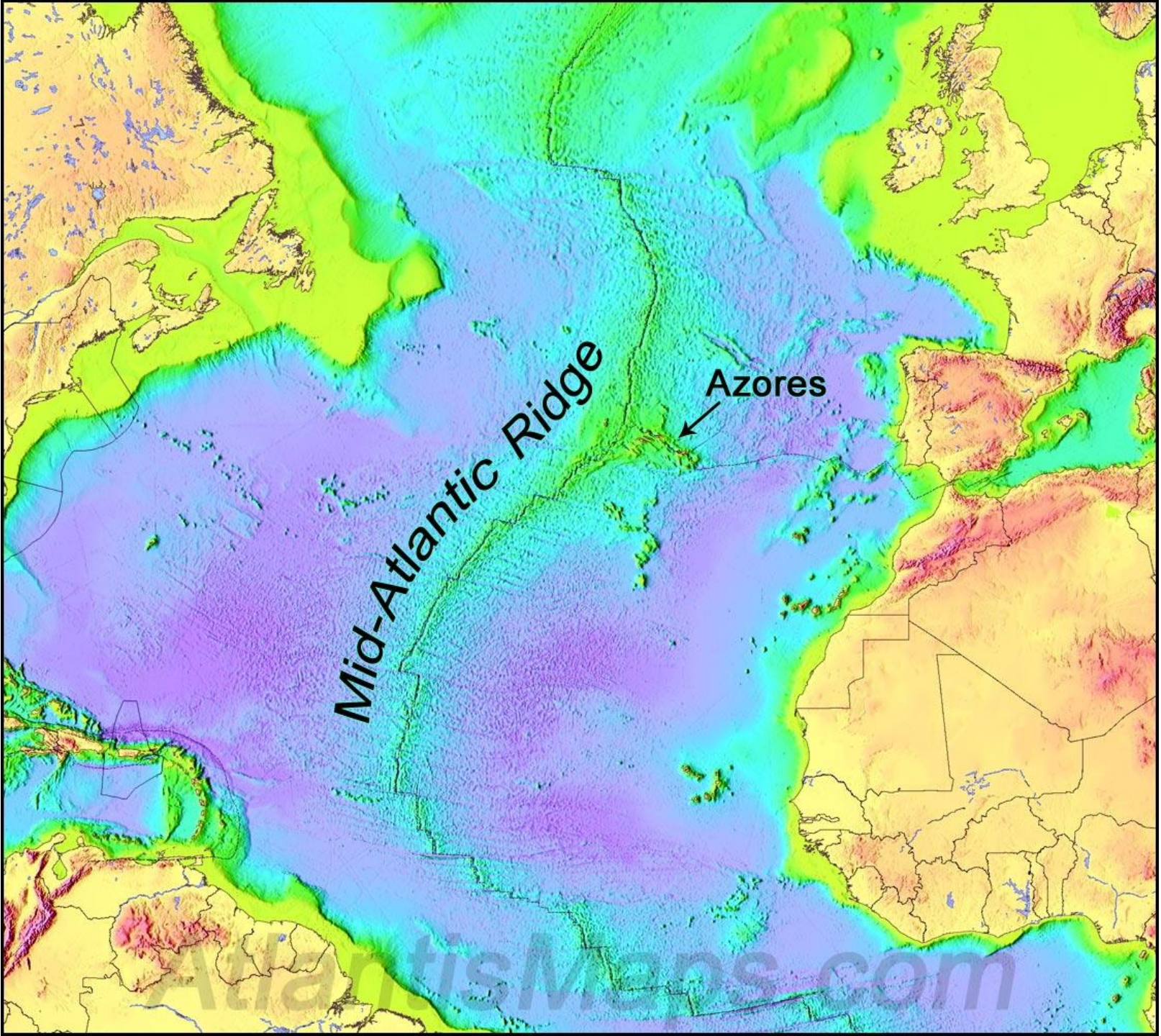
# Theory of Plate Tectonics

**C-notes**

## **Ocean Floor-1**

**In the 1950's scientists mapping the ocean floor discovered that there was an underwater mountain ridge**





Mid-Atlantic Ridge

Azores

# Theory of Plate Tectonics

**C-notes**

## **Ocean Floor-1**

**Where these mid-ocean ridges (MOR) are, NEW crust is being formed.**







# Theory of Plate Tectonics

C-notes

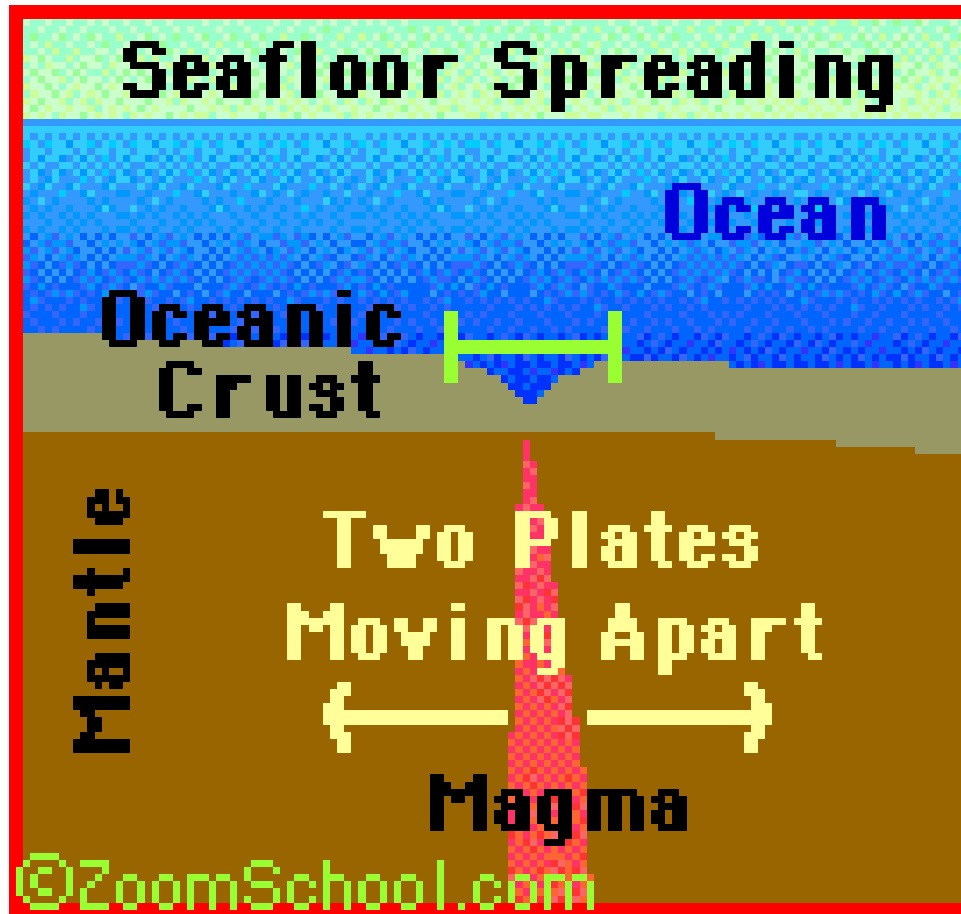
**Ocean Floor- 2**  
**Where the new crust**  
**formed was causing**  
**“Sea Floor Spreading”**

### **Ocean Floor- 2**

### **Sea- Floor Spreading**

- **Magma rises to the surface and solidifies and new crust forms**
- **Older Crust is pushed farther away from the ridge**

# Sea Floor Spreading



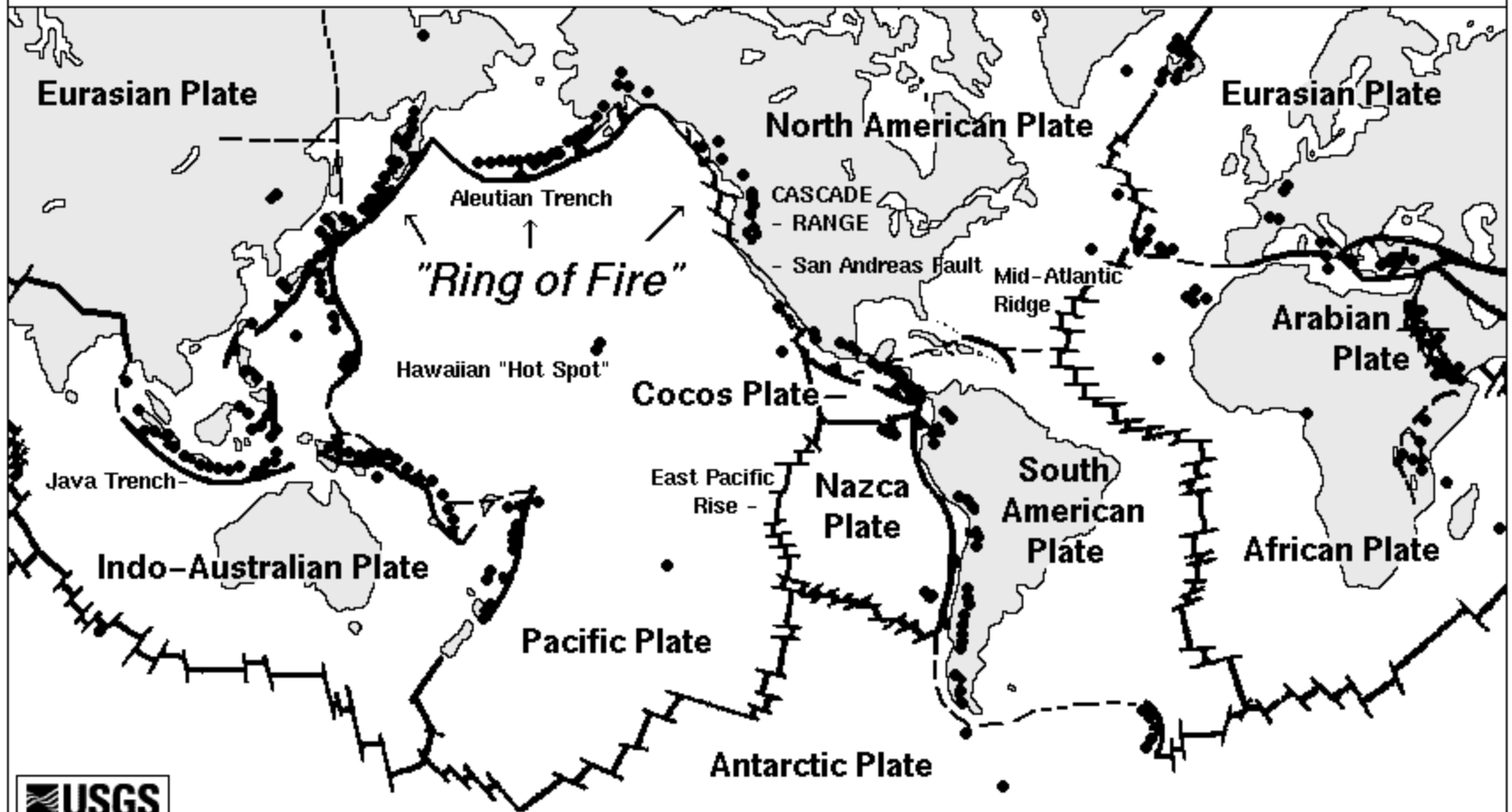
# Theory of Plate Tectonics

**C-notes**

## **World Map- 3**

**As scientists mapped  
where volcanoes,  
mountains and  
earthquakes occurred-  
they saw a pattern**

# Active Volcanoes, Plate Tectonics, and the "Ring of Fire"



Topinka, USGSICVD, 1997, Modified from: Tilling, Heliker, and Wright, 1987, and Hamilton, 1976



# Theory of Plate Tectonics

C-notes

**World Map- 3**  
**Where the earthquakes,**  
**volcanoes and**  
**mountains occurred**  
**marked the outlines of**  
**the tectonic plates!**