

## **Introduction to Geology**

Why the heck would you want to take a geology class?

- 1) Geology is responsible for supplying many of the things we need.
- 2) Geology is closely related to the environment, which we need to protect.
- 3) Coping with geologic hazards.
- 4) Understanding our surroundings

## **Earth Systems:**

- 1) Hydrosphere
- 2) Atmosphere
- 3) Biosphere
- 4) Geosphere

## **Overview of Important Geologic Principles**

### **A. The Earth's Heat Engines**

- 1) Internal
- 2) External

### **B. Parts of the Earth and Plate Tectonics**

**Plate Tectonics:** states that the earth is composed of lithospheric crustal plates that interact with one another in a dynamic fashion (colliding, spreading apart or sliding by one another).

Plate Boundary Types:

1) Convergent

2) Divergent

3) Transform

## **Geologic Time Scale**

Eons>>>Eras>>>Periods>>>Epochs>>>Ages

*The Four Eons:*

Hadean Eon (4.5 BYA to 4.0 BYA)

Archaen Eon (4.0 BYA to 2.5 BYA)

Proterozoic Eon (2.5 BYA to 543 MYA)

Phanerozoic Eon (543 to Present)

*The Three Eras of the Phanerozoic Eon:*

Paleozoic Era (543 MYA to 248 MYA)

Mesozoic Era (248 MYA to 65 MYA)

>Divided into the Triassic, Jurassic and Cretaceous Periods

Cenozoic Era (65 MYA to Present)

>Divided into the Tertiary and Quaternary Periods