

q&a posted after each lecture on bright space

Ring of fire = pacific coast

Lines of earthquakes make patterns across the globe

Seismic hazard map

Earth returning to "pre-glacial" state causing earthquakes

Western Quebec seismic zone includes Ottawa

Yellowstone national park has high earthquake activity due to volcanic presence

- also present in Iceland, and Hawaii

New Madrid zone (Missouri + Arkansas) has high earthquake activity related to animal life as indicators for earthquakes

- e.g. dying birds and fish

Atmosphere:

Biosphere:

Hydrosphere:

Cryosphere:

Lithosphere:

Geology includes studies in:

- Spatial scales (looking at massive subjects vs microscopic subjects)
- Time scales (from billions of years down to milliseconds)
- Complex systems (controlled experiments are difficult)
- Fragmented evidence (broken up by modern man-made structures covering the globe)
  
- Collect facts through observations and measurements, second to understanding
- Discovering patterns and make predictions from said patterns
- Not what, but how

Inductive method (Baconian)

- Collection of data without regard to theory
- Expect the explanation to be obvious from the organization of data

Deductive method (Darwinian)

- Devised models account for set of observation, used to make predictions
- Iterative
- Hypothesis comes before collecting data

Hypothesis: (model) a testable explanation

Theory: well-tested and widely accepted view that the scientific community agrees best explains certain observable facts

Law: statement based on repeated experimental observations that describes some phenomenon of nature with high degree of certainty

Big 5 Extinctions:

1. End-ordovician
2. End-devonian
3. End-permian
4. End-triassic
5. End-cretaceous

