

**Physical Geology 1330**  
**116-S&R 1**  
**Lecture 1**

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### **Today's Outline**

- What is Geology?
- Why is Geology important?
- What is Science?

**What is Geology** – The scientific study of the processes, events, and consequences of the Earth's past, present, and future.

Why is geology important?

- 1.
- 2.
- 3.
- 4.
- 5.

What are some geologic hazards?

Why is it necessary to understand the Earth's history?

- 1.
- 2.
- 3.
- 4.

What is Science? Theory of Plate Tectonics as an example of science.

Observations: (1) Landforms and continents fit together across oceans (e.g. Africa and South America).

(2) Fossils are the same on continents that are now separated 100's to 1000's of miles apart.

Hypothesis: Continents were once connected together, forming one continent called Pangea. 200 million years ago, Pangea broke up into plates. Since then, plates (continents) shifted to their present configuration.

Definition of Science -

1. A body of knowledge related to the study of natural phenomenon.
2. Application of the **Scientific Method** – process of gathering facts through observation, then formulate hypotheses, then test the hypotheses.

What is a hypothesis?

- 1.
- 2.

How do you test a hypothesis?

- 1
- 2
- 3
- 4

What is a theory?

- 1
- 2
- 3
- 4