

# ES 106


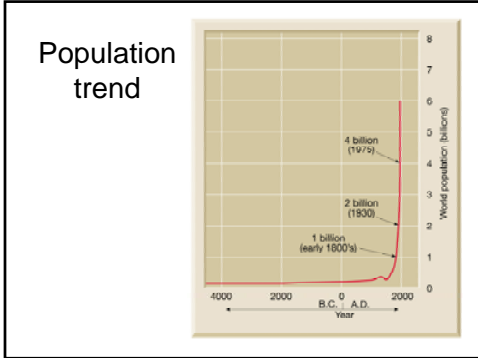
## Earth Systems Science III

*Earth Science, 12<sup>th</sup> Ed., Tarbuck and Lutgens, 2009*

*Conceptual Physical Science, 4<sup>th</sup> ed., Hewitt, Suchoki and Hewitt, 2008*

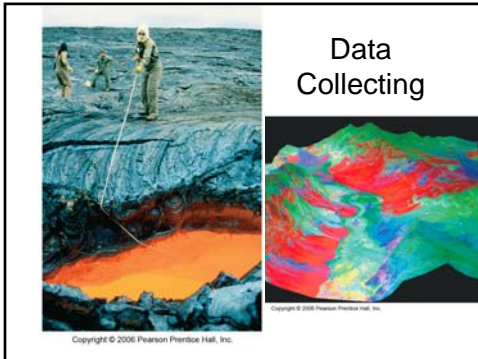
### Introduction

- No lab this week
- Bring lab manual next week!!
- Must pass lab to pass this class!!
- Instructors will give percent lab grade to one another

### Scientific Inquiry

- Gather data
- Formulate plausible explanations
- Devise tests and predictions
- Revise, reject or accept explanations

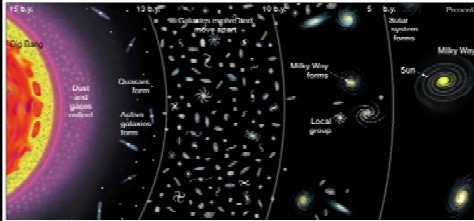


### Hypothesis vs. Theory

- Hypothesis is an explanation that requires testing
- Theory has been tested, and is supported by the evidence, and predicts things not used to formulate the hypothesis
- Paradigm is a theory that explains wide ranging sets of observations



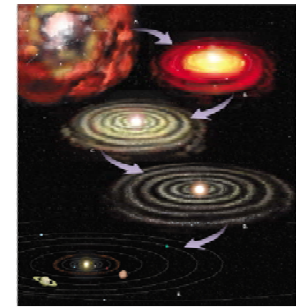
## Big Bang forms all matter



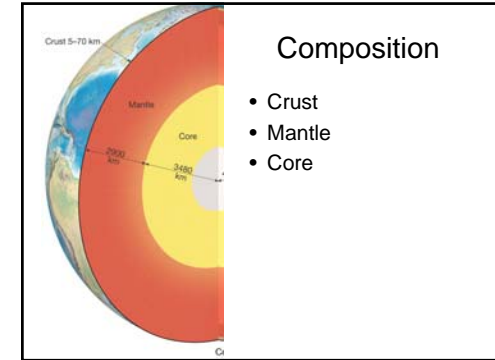
## Nebular Hypothesis

- Formed our solar system
  - Sun
  - Planets
  - Asteroids and comets
- Rotating cloud of dust and gases collapses into these bodies

## Solar system formed from nebular cloud



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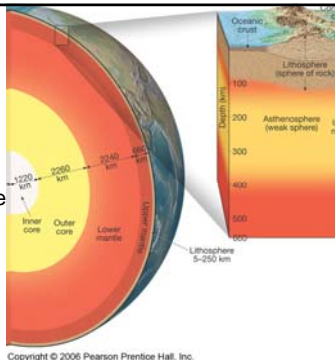


## Composition

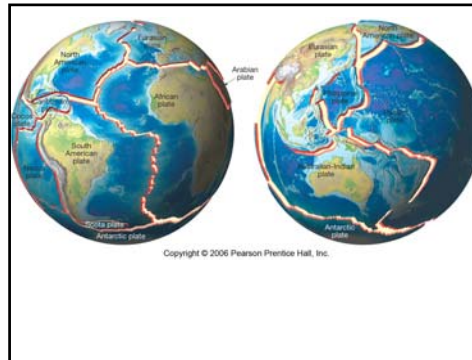
- Crust
- Mantle
- Core

## Properties of Earth's interior

- Lithosphere
- Asthenosphere
- Lower mantle
- Outer core
- Inner core



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## Be sure to attend lab next week

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