

A scenic landscape featuring a snow-capped mountain peak, evergreen trees, and a calm lake reflecting the scene. The mountain is the central focus, with patches of snow and dark rock. The sky is blue with scattered white clouds. The foreground shows a grassy field and a clear lake that perfectly mirrors the mountain, trees, and sky above.

Earth Systems Science

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ES 106

Earth Systems Science III

Earth Science, 12th Ed., Tarbuck and Lutgens, 2009

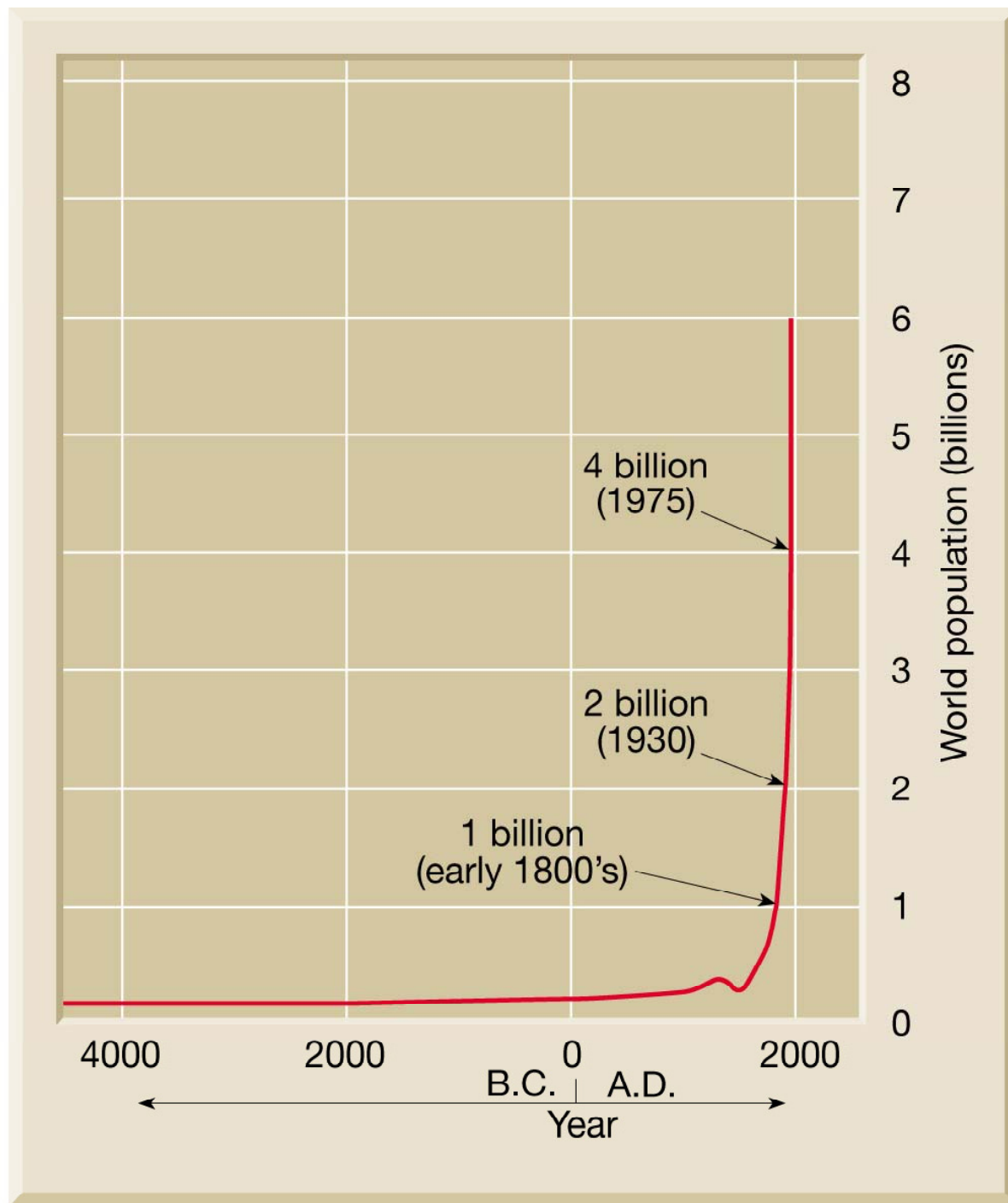
Conceptual Physical Science, 4th ed.,
Hewitt, Suchocki and Hewitt, 2008

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



Population trend



Resources, Hazards



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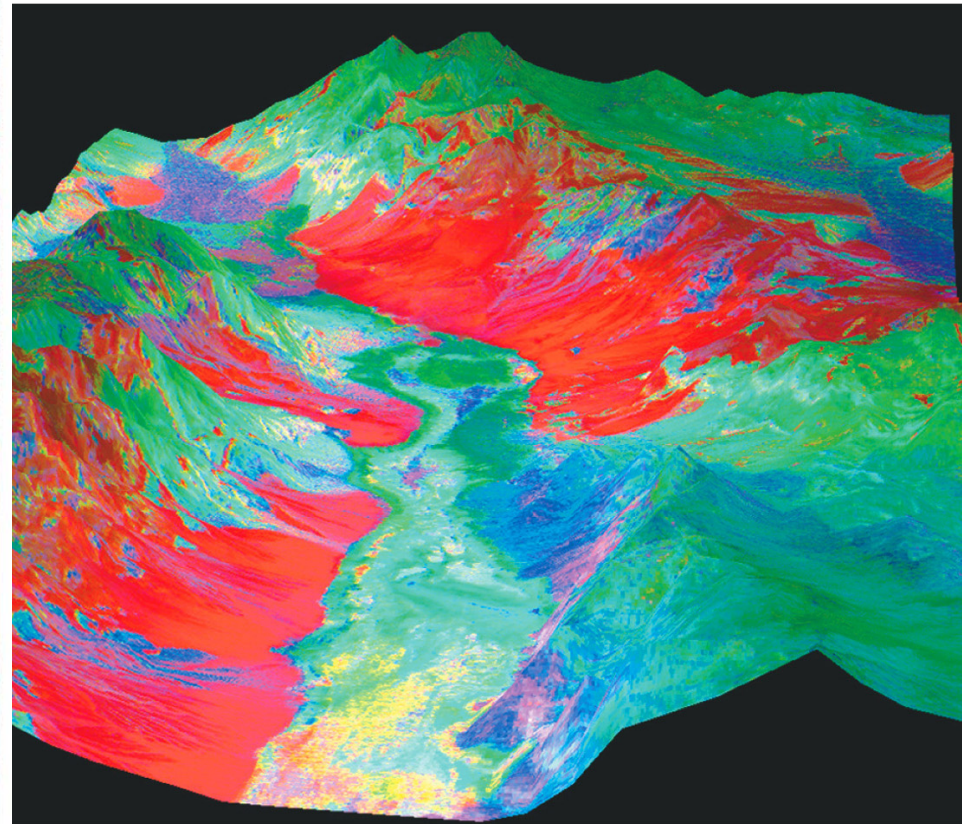
Scientific Inquiry

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



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Data Collecting



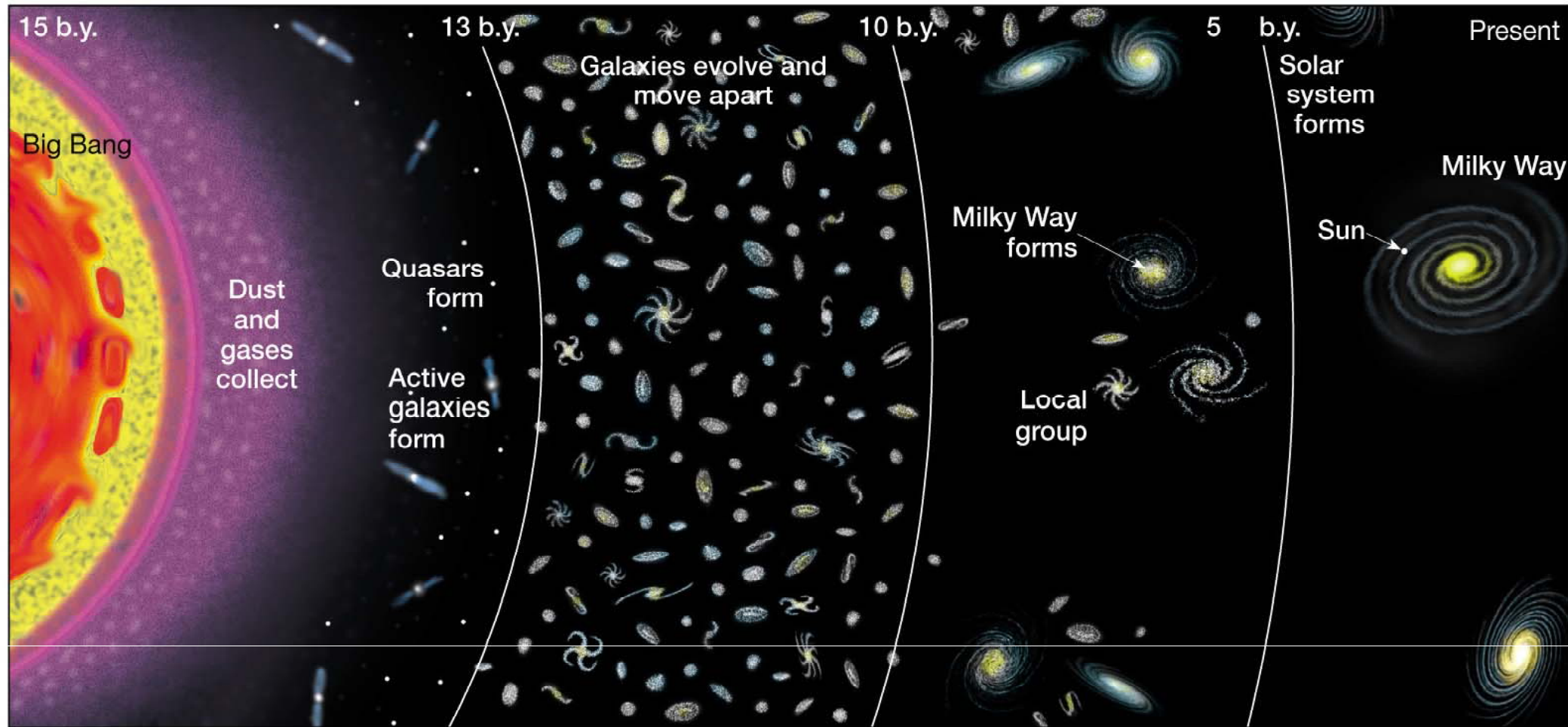
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Hypothesis vs. Theory

- 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



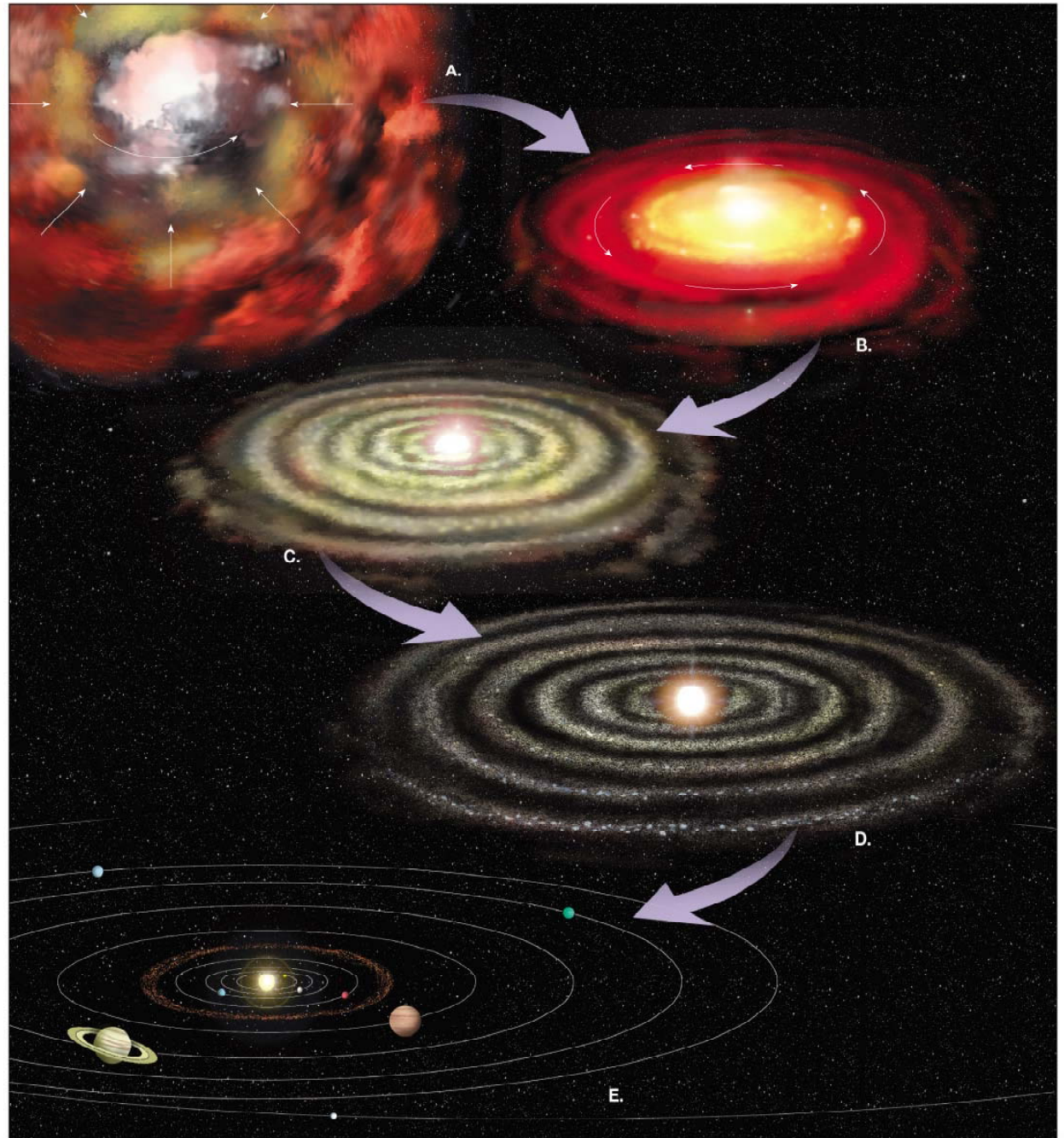
Big Bang forms all matter



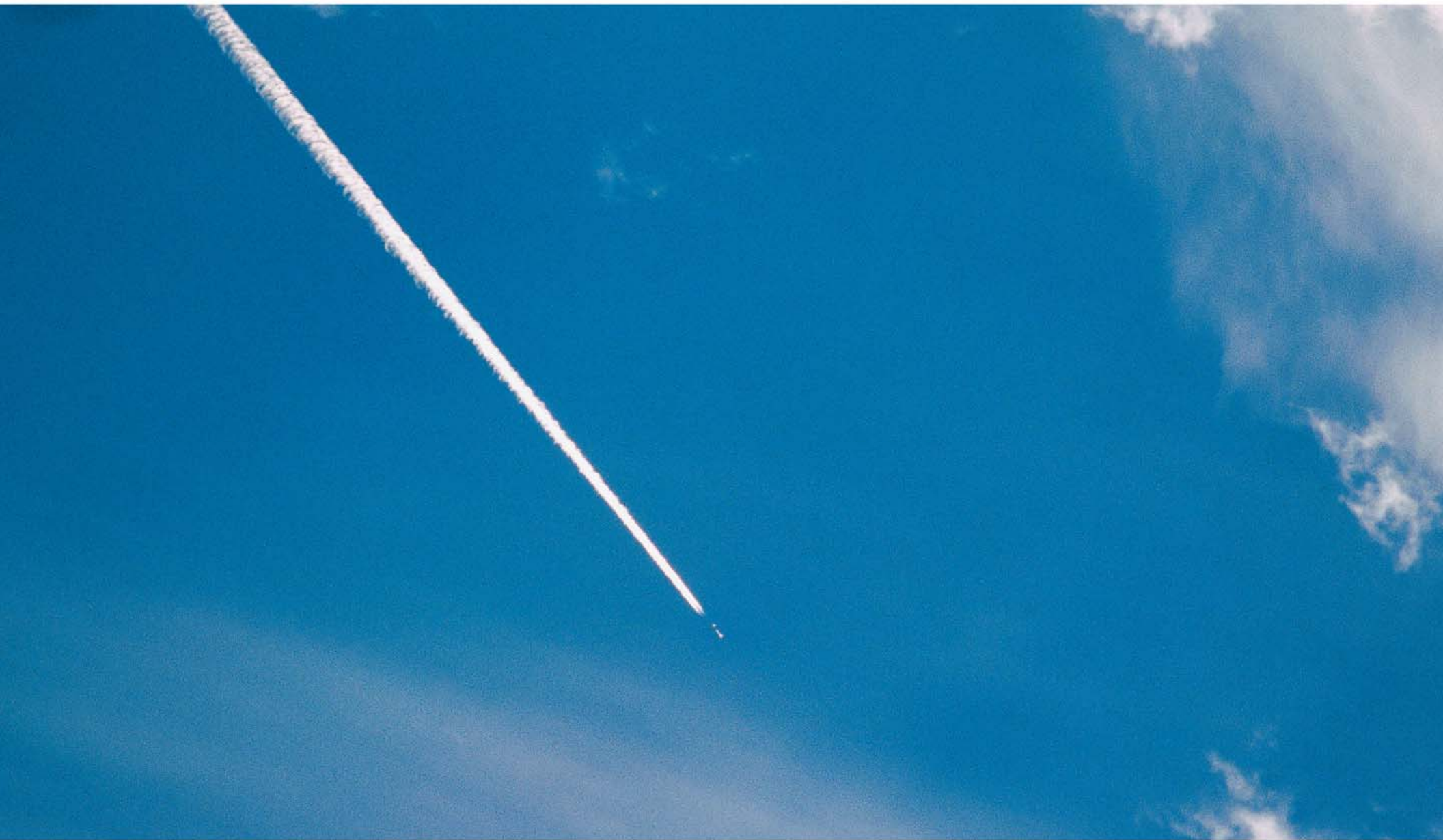
Nebular Hypothesis

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

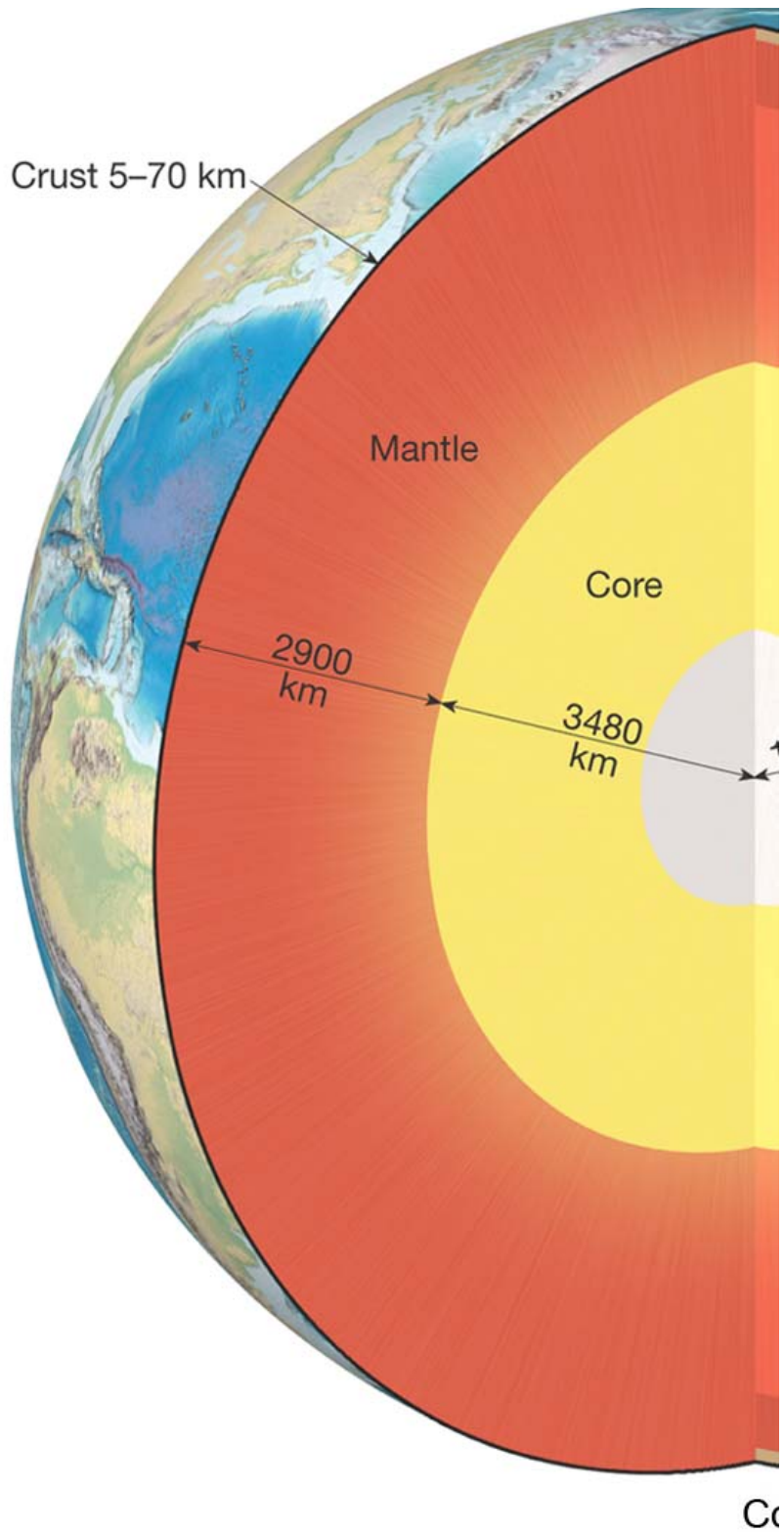
Solar system formed from nebular cloud







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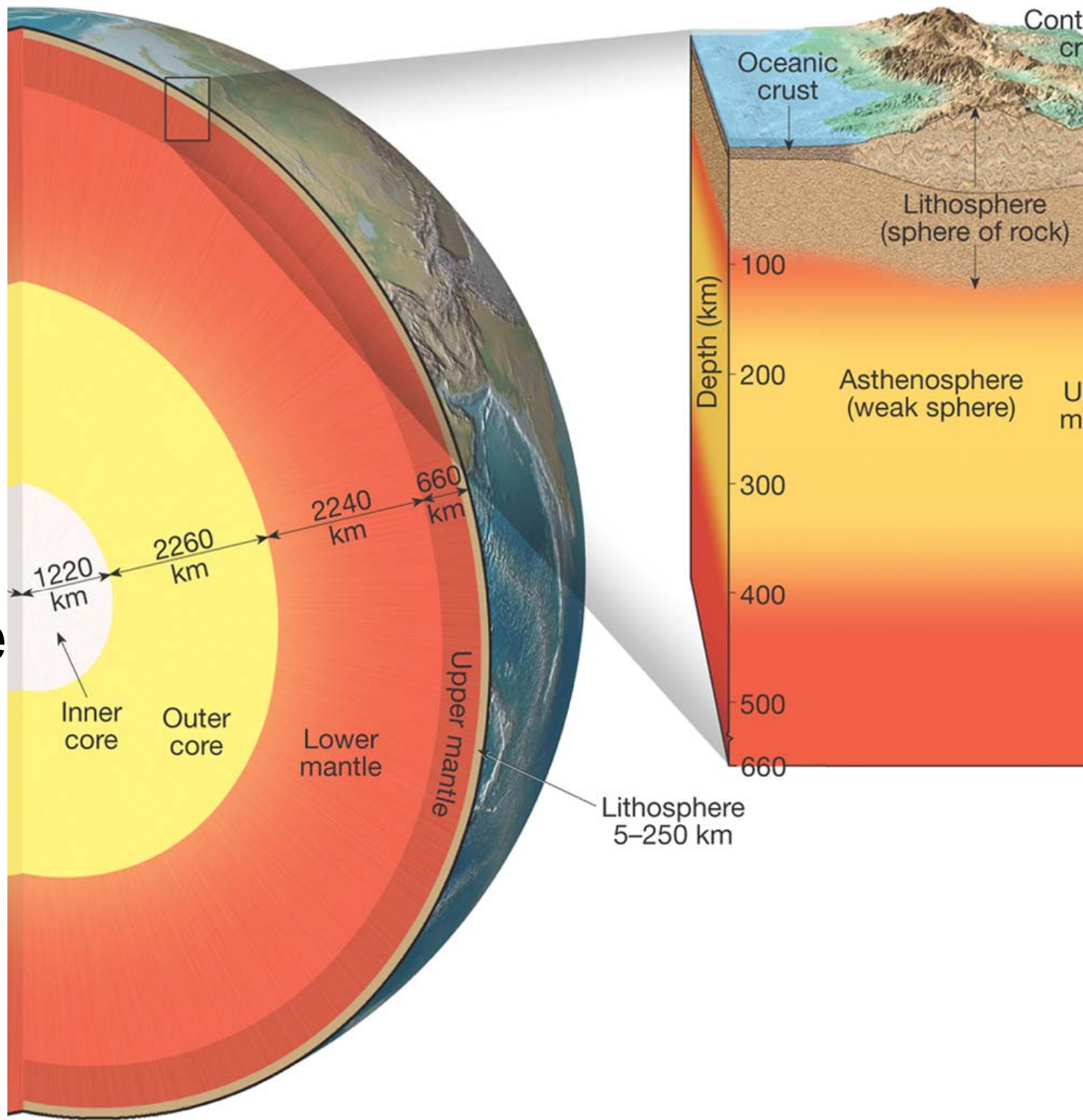
Composition

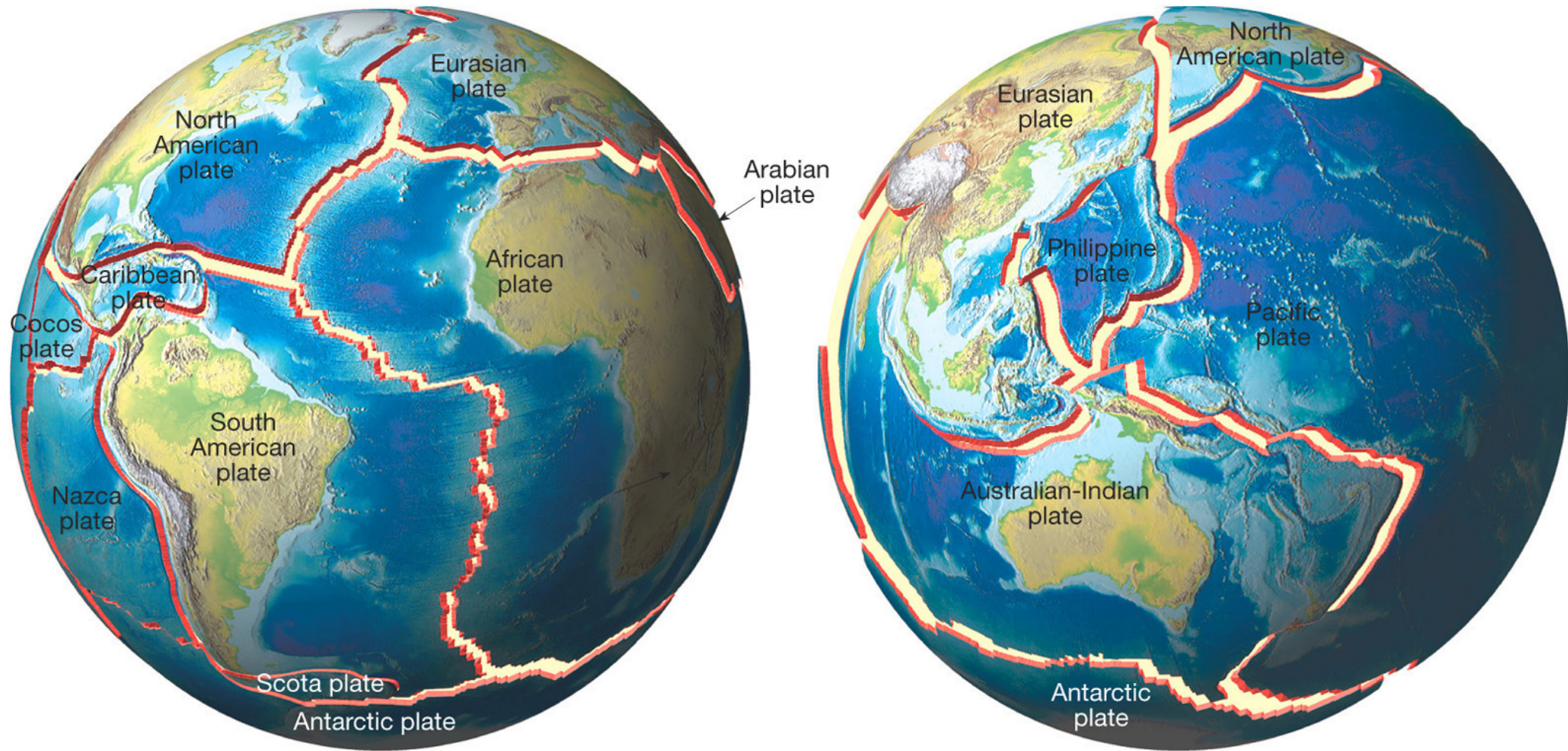
- Crust
- Mantle
- Core

Co

Properties of Earth's interior

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





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