Open Channels

¶ 0.1



Questions or feedback are always welcome.

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Gemini Notebook

Welcome to Geology 101 B

¶ 0.2

Anderson Academy: A free library of university-level courses, ~1 hour each.
Subject: Introduction to Earth Science.

1. What the planet is made of

2. How it moves



3. How it changes

4. How its air and water behave

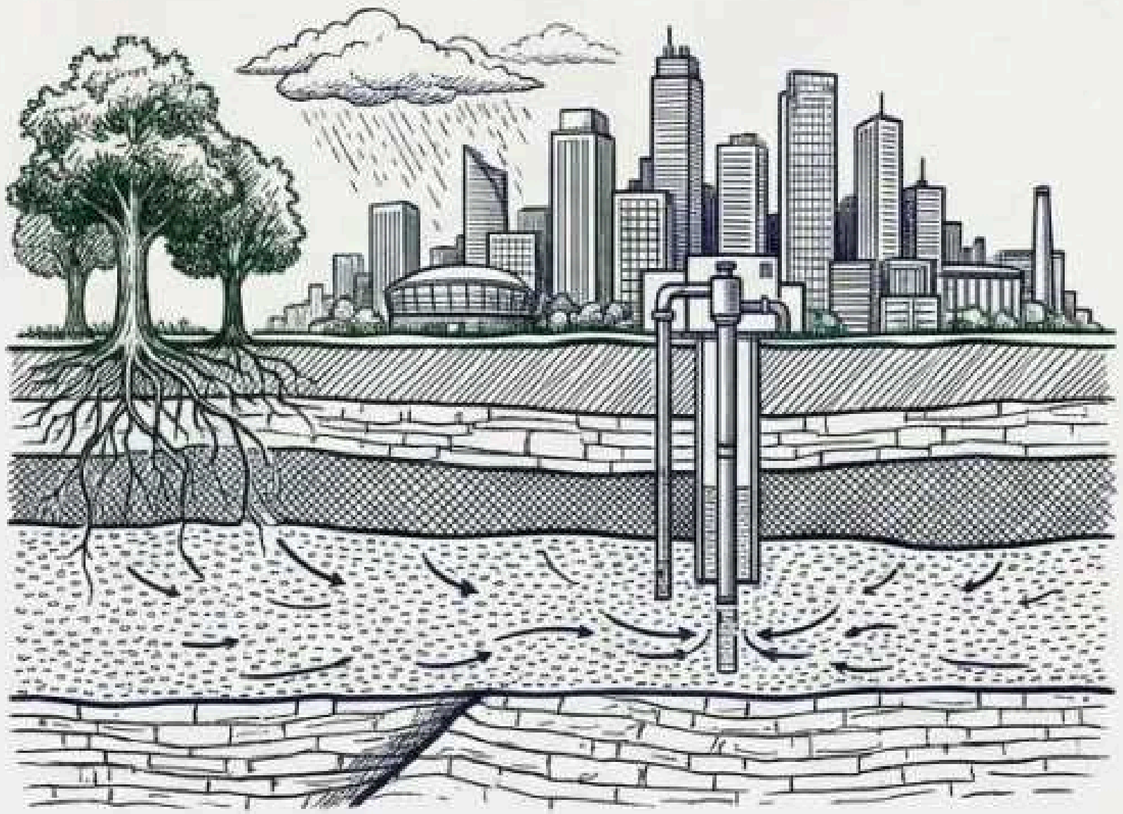
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Why Study the Earth?

¶ 0.3

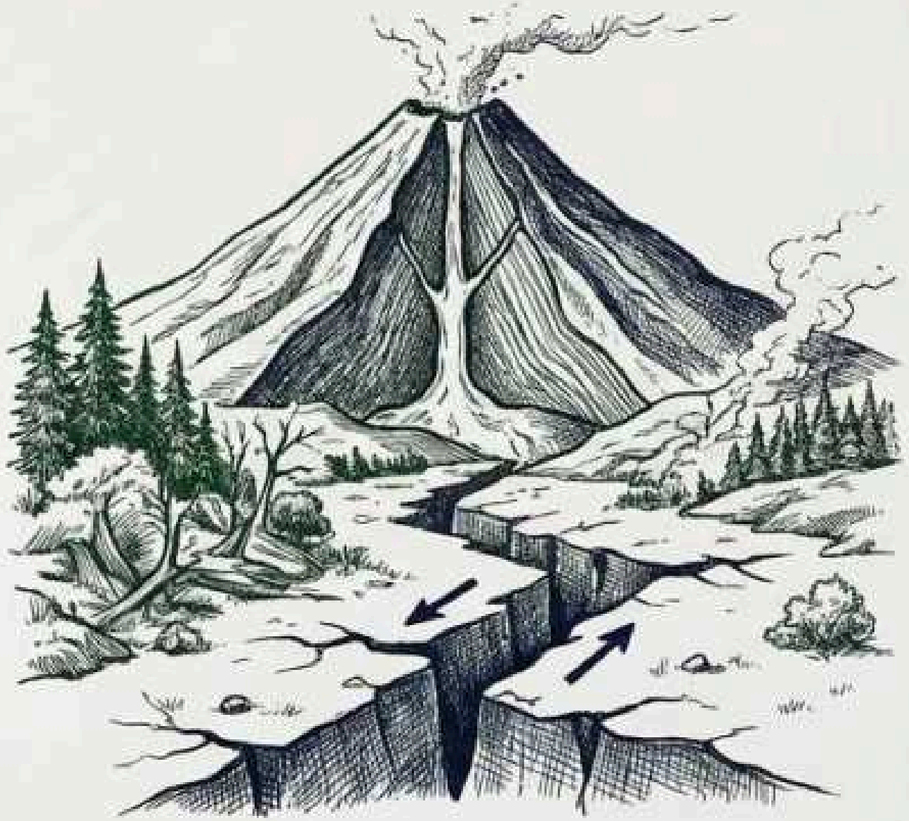
Everyday Resources

Human life depends on it. The ground under a city, water in a well, metals in a phone, and daily weather.



Formidable Hazards

Shaping safe habitats. Earthquakes, volcanoes, floods, and climate shifts dictate where people can safely live.



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Course Map

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L6: Systems (Atmosphere, Oceans, Climate)



L5: Surface (Weathering, Rivers, Groundwater, Ice)





L4: Hazards (Earthquakes & Volcanoes)

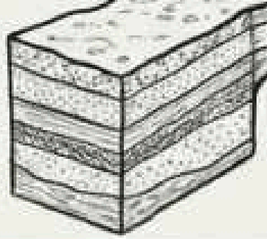
L3: Dynamics (Plate Tectonics)



L2: Materials (Minerals & Rocks)



L1: The Planet (Layers, Age, Deep Time)





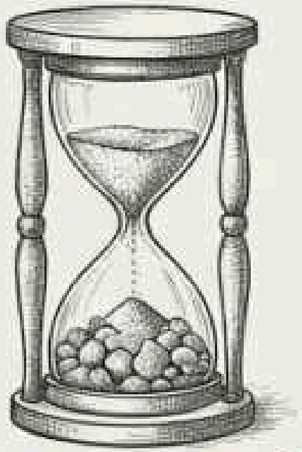
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Three Core Themes

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Time

Most processes are slow, driven by billions of years.



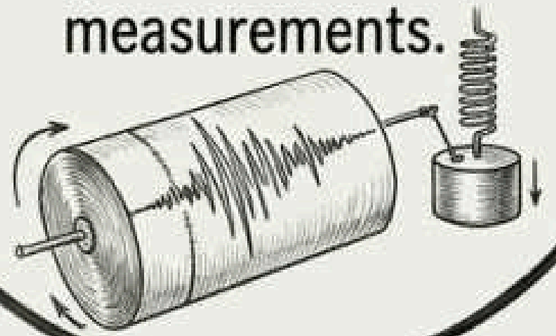
Cycles

Rock, water, and carbon continuously move and return.



Evidence

Since we cannot drill to the center, we read the planet through waves, rocks, and measurements.



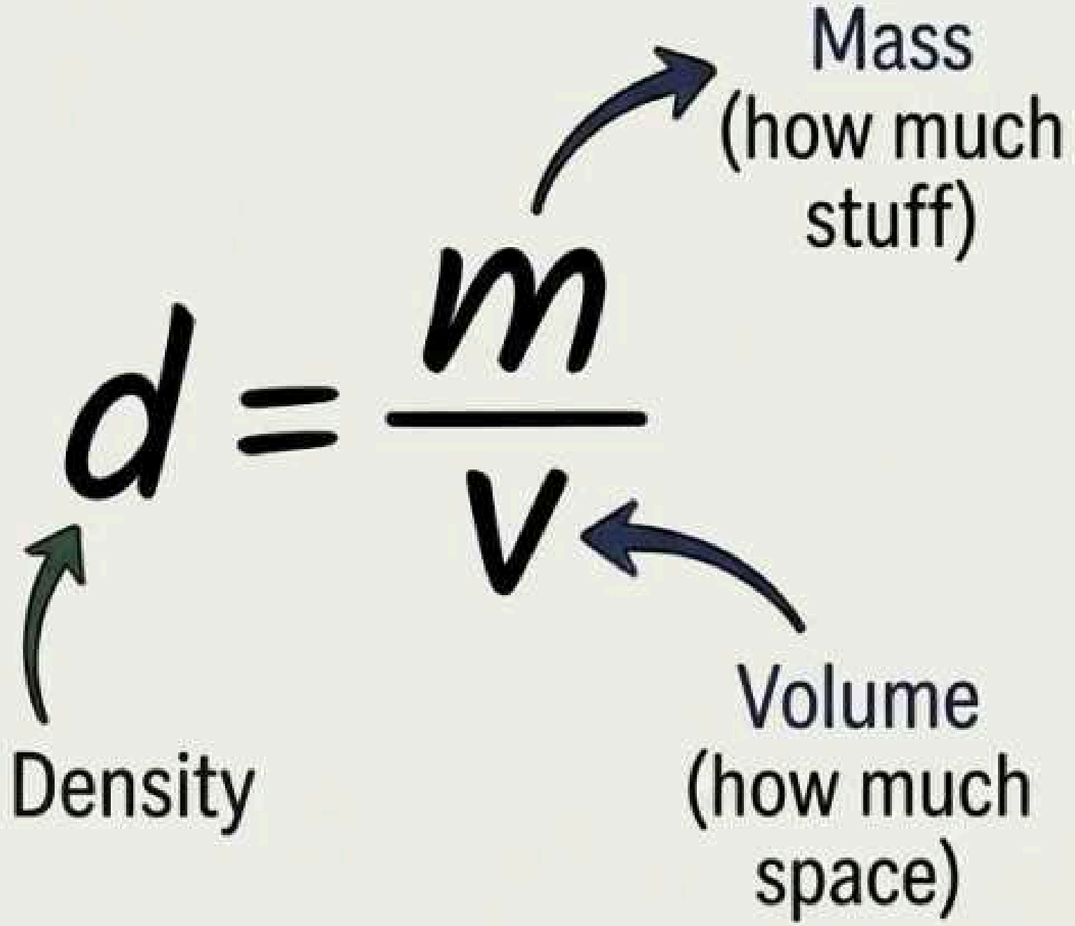
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Prerequisites & Math

Background Needed: None (Science background not required).

Math Level: Ordinary arithmetic & basic algebra. Step-by-step calculations with clear context context.

Strict Metric Units:
- Distance: Kilometers (km), Meters (m)
- Temperature: Degrees Celsius (°C)

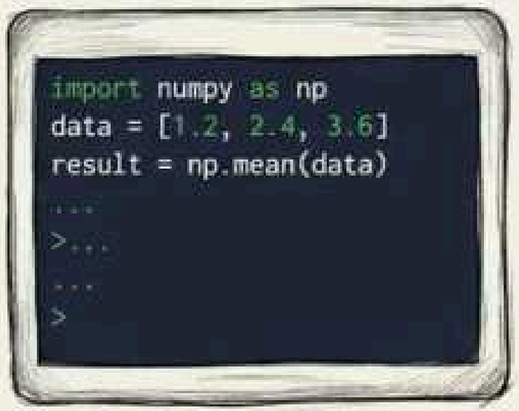


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Development & Accuracy





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Creation:
AI assisted, but strictly directed by a human teacher.

Verification:
Every worked calculation is checked by running the numbers in code.

Error Reporting:
Mistakes can happen. Every paragraph is numbered so you can report the exact location of any error.

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A Word of Caution

Scope: Education

This course is for academic education. It is NOT engineering, planning, or safety advice.

Action: Local Authority

Always follow your local geological survey and emergency agency for earthquakes, floods, or volcanoes.

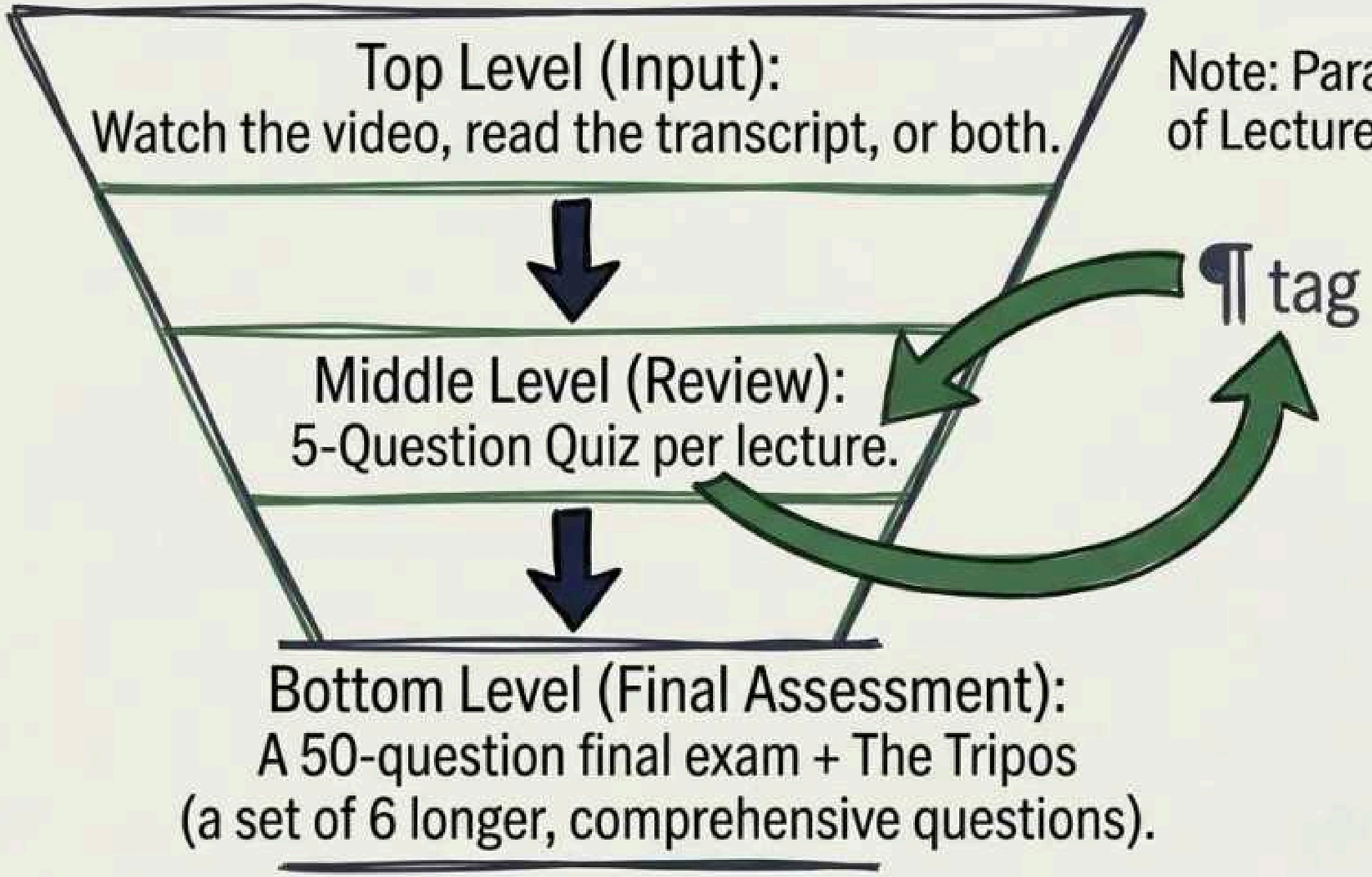


Scientific Uncertainty:

Science evolves; details are debated. Uncertain evidence will be clearly noted.

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How to Use the Course



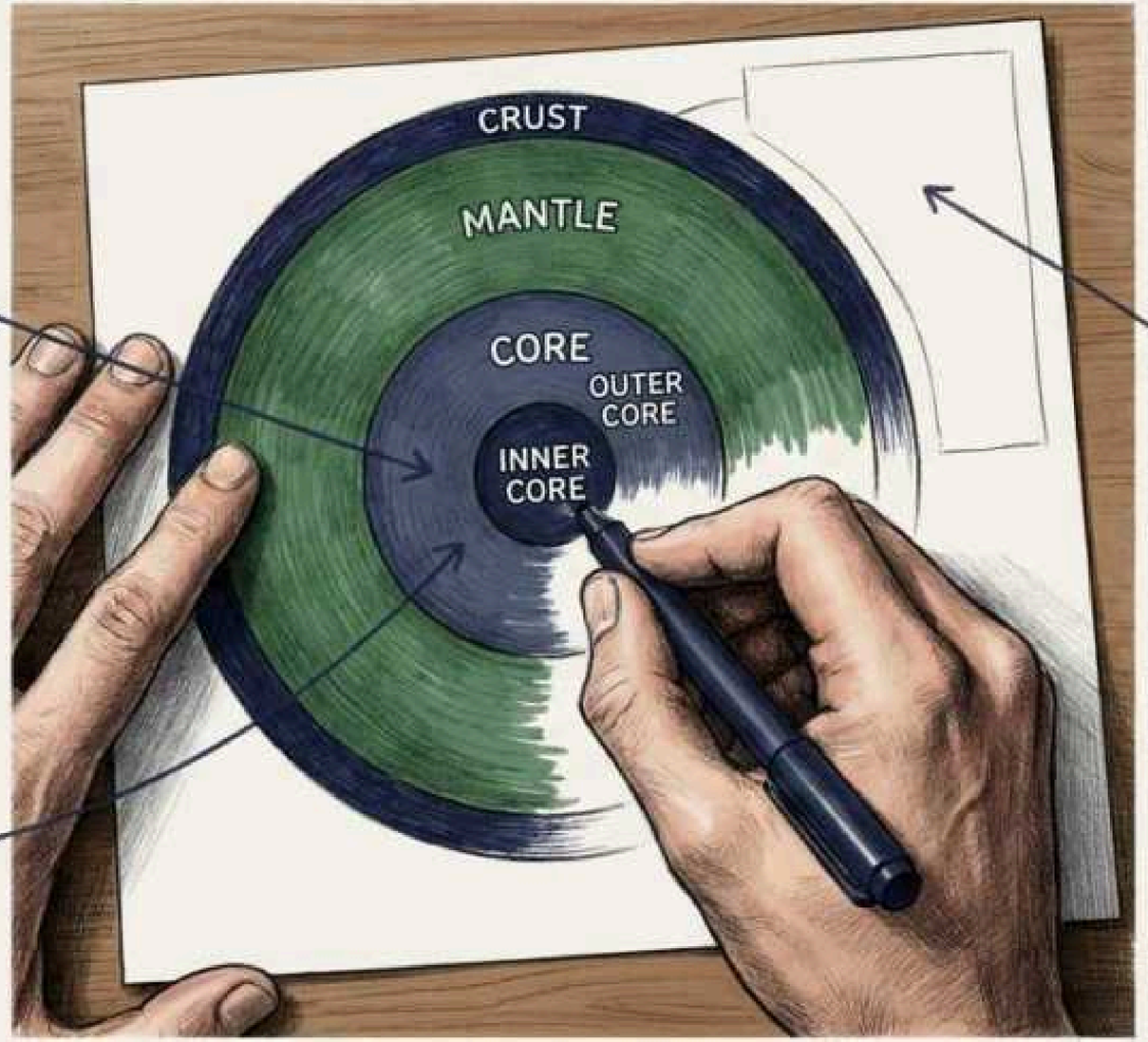
Note: Paragraph 5 of Lecture 3 = ¶ 3.5

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The Best Way to Learn

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Method: Draw it.



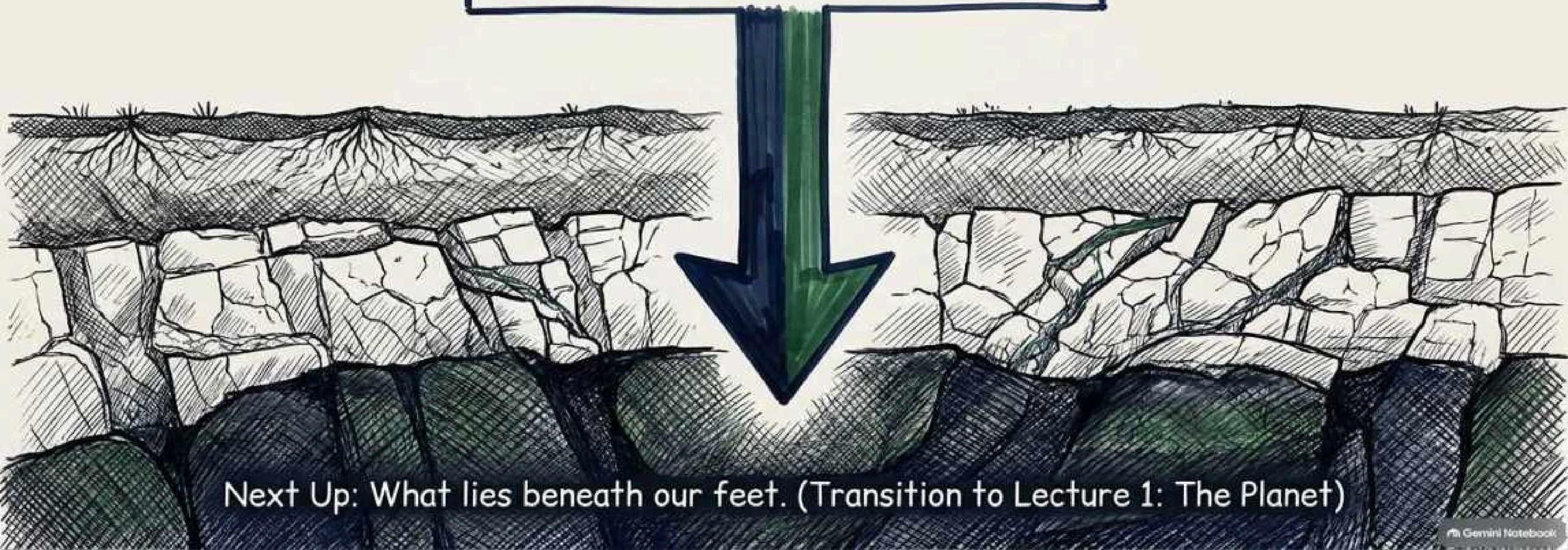
Action: After each lecture, sketch the system from memory on a blank page (e.g., Earth's layers, plate boundaries, water cycle).

Review:
Compare your sketch to the transcript. Where your memory went blank is exactly what you need to review.

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Let Us Begin

Questions or feedback?
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Next Up: What lies beneath our feet. (Transition to Lecture 1: The Planet)

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