



Wednesday, Oct 3, 2018

Pick up: biogeochemical cycles diagram pg 47

Today you will:

- <https://www.youtube.com/watch?v=BnpF0ndXk-8>
- Finish Cornell Notes
 - Label/color diagram

HOMEWORK:

Make sure your webquest (turn in) from Friday and Cornell Notes are complete. Quiz Monday, 10/8

Earth's Five Spheres

1. Atmosphere
2. Hydrosphere
3. Geosphere
4. Biosphere
5. Cryosphere



Atmosphere

Blanket of gases surrounding Earth's surface.
78% Nitrogen, 21% Oxygen, 1% other





Hydrosphere

All the water on Earth.

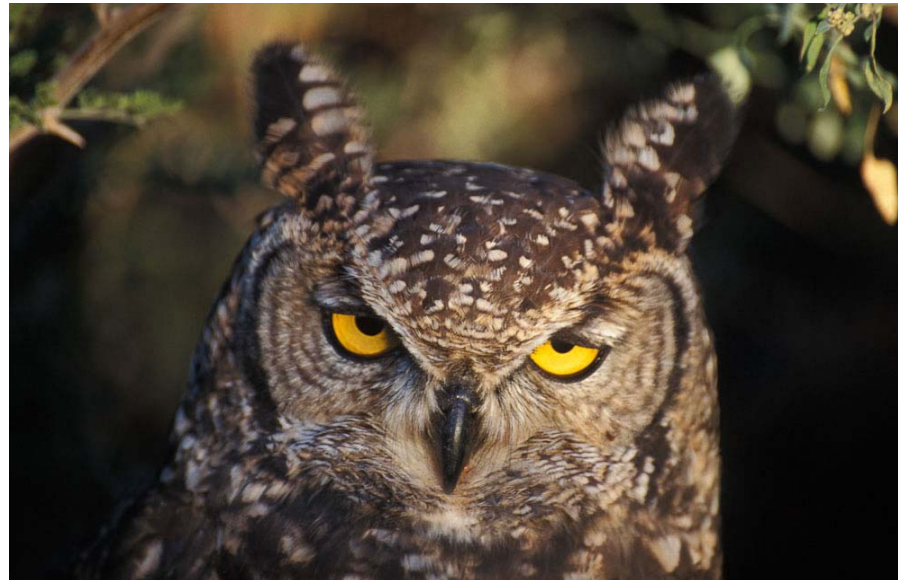
97% salt (global ocean) 3% fresh

A cross-sectional diagram of the Earth's geosphere. The diagram shows the outer layers of the Earth, including the crust and the upper mantle. The crust is depicted with various tectonic plates, some of which are moving towards or away from each other. The upper mantle is shown with a distinct boundary, likely the asthenosphere. The diagram uses a color gradient from dark blue at the top to light green and yellow at the bottom, representing different geological layers. The text "Geosphere" and "Rocky part of Earth" is overlaid on the diagram in white.

Geosphere

Rocky part of Earth

Biosphere – life



Cryosphere

Ice sheets of Earth



Energy on Earth

First Law of Thermodynamics - Energy cannot be created or destroyed, but can be transferred from system to system.

Matter and energy are transferred between the five spheres (open systems).

Conservation
of
Energy

It's the Law

Earth's Energy Sources

Internal (inside Earth)

And

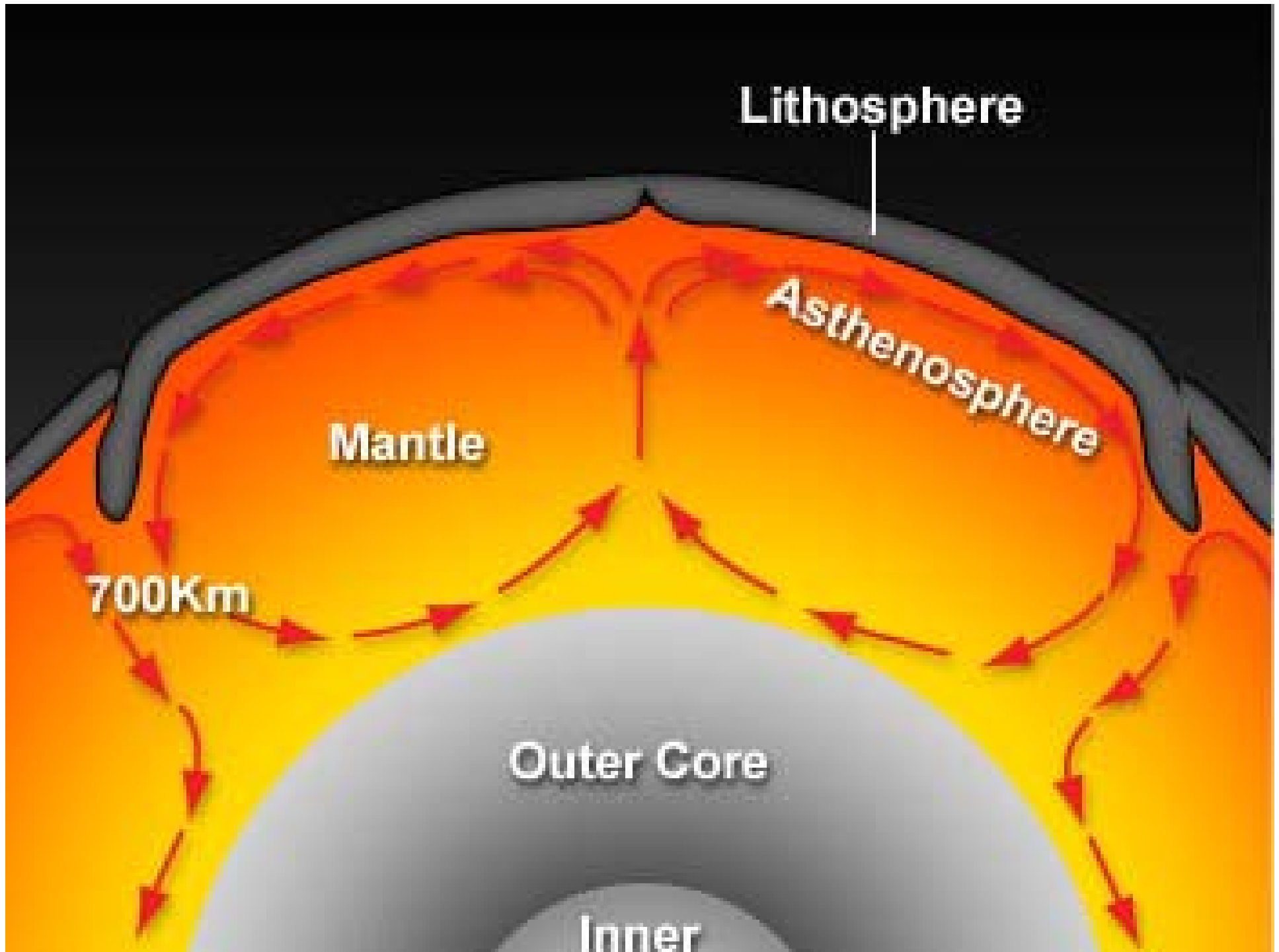
External (outside of Earth's spheres)



Earth's Internal Energy

- Geothermal energy
 - Convection currents move warm fluids to the surface and cool fluids sink.





External Sources

1. The sun – causes movement of air masses, winds, ocean currents, and fuels photosynthesis.



2. Gravitational energy from the moon and sun – causes tides, mixing of ocean waters

