

Earth as a System Notes

Name: _____ Block/day: _____

1. _____: a kind of model often used to describe the natural world.
2. _____: Energy enters and may leave, but matter does not leave.
3. _____: Energy and Matter are free to enter and leave.
4. Earth is considered _____, Exceptions: _____ escapes & _____ enter.

5. Open or closed?

- Volcano: _____
- Light Bulb: _____
- Tree: _____
- Ocean: _____
- Boiling water: _____

Some Prefixes to know:

“Atmos”: Vapor/Steam
“Hydro”: Water
“Bio” = Life
“Geo” = Earth
“Litho” = Stone/Rock
“Cycl” = Circle/wheel
“Thermo” = Heat

6. The Four Spheres:

- I. _____: **Gaseous envelope surrounding the Earth.** Provides Oxygen, Carbon Dioxide, also absorbs and blocks harmful radiation. This is where all the weather occurs.
- II. _____: **All physical features of the Earth** (except water) such as _____, mineral resources, metals, mountains, beaches, and lithospheric plates.
- III. _____: Includes all of Earth’s water: oceans, _____, lakes, and groundwater. It is continually _____. _____% Salt Water, _____% Fresh Water, _____% Usable
- IV. _____: All **living** things: plants, animals, bacteria, etc.

ENERGY we can use:

- A. _____ Energy comes from nuclear reactions in the sun, _____% of total energy. Drives the _____, ocean currents, waves, and _____.
- B. _____ Energy: **Geo** means _____ & **Thermal** means _____. Drives the movement of _____, volcanoes, earthquakes, and geysers. Geothermal energy also plays an important role in the _____.
- C. _____ Energy results from the _____ on the Earth’s oceans.
- D. _____ Energy that can be used from **organic** (living and/or dead) matter.

