

Chapter 1.3: The Energy Cycle

- _____
_____.
- _____ than the previous cycles we have learned about.
- More like a _____.
 - When you measure on a _____ you want the two sides to _____.
 - What is on _____ should _____ what is on the _____.
- The amount of energy _____ a system should equal the amount of energy _____ a system.
 - If a system were to take in _____ energy than it _____, the system would _____.
 - If it _____ more energy than it _____, _____.
- Because of this _____ nature, scientists refer to the energy cycle as the _____.
- There are _____ main sources of energy in the energy budget:

Solar Energy

- _____ of the energy that enters the Earth system(_____) system comes from the _____.
- Solar energy drives the _____, _____, _____, and _____.
- It is also the source of the energy that causes rocks to - _____ and _____ to form.

Geothermal Energy

- _____ (_____%)
- Geothermal energy is responsible for driving the _____, _____, and also contributes to rock formation.

Tidal Energy

- _____ part of the energy budget (_____%)
- Results from the _____ and _____ pull on the Earth's oceans.
- Powerful enough to slow Earth's rotation because of the "_____".

Maintaining the Balance

- Incoming energy must go somewhere.
- About _____% of it is reflected back into space.
- Albedo
 - _____.
 - A forest has a _____ albedo (_____% reflected).
 - A snow field has a _____ albedo (_____% reflected).

The Laws of Thermodynamics

- _____.
- Thermodynamics is the branch of physics that deals with _____.
- The laws of thermodynamics deals with how _____ will _____.

First Law of Thermodynamics

- _____.
- Example)
 - Solar energy is stored in plants which die and eventually become fossil fuels.
 - Fossil fuels are burned at electrical power plants and generate electricity, which can then power a light bulb.

Second Law of Thermodynamics

- _____.
- Unlike water which can convert from liquid to solid back to liquid without harm, _____.
- Some energy will always be _____, usually in the form of _____.