Warm-Up
Today you will need your pencil, notebook and countdown folder.
Quiz tomorrow on energy.
Homework #5 due Friday.
Test Corrections & Carrying Capacity Extra Credit due Friday.
Honors Project Phase II due Friday.

- Review: Explain why when it is summer in the Northern Hemisphere it is winter in the Southern Hemisphere.

In summer, the Northern is leaning toward the sun. Therefore, the Southern is leaning away from the sun and receives less direct sunlight making winter conditions.

Sunshine!

- Nuclear Fusion

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Nuclear Power Plant

2. What is the difference between nuclear fission and nuclear fusion?

- Both are nuclear reactions that produce energy but…
- **Fission** is the splitting of a unstable nucleus, and **fusion** is where two light nuclei combine together.

Video on Nuclear Energy

- https://www.youtube.com/watch?v=rcOPV4y5z8c

Nuclear Power Plant Parts

- Water is heated into steam by a nuclear reaction. The steam turns the turbine to generate electricity.
- Generator
- Turbine
- Cool Water Condenser
- Cooling Tower
- Fuel Rods
- Transformer
Pros and Cons on Nuclear Power

**Pro**
- Does not produce carbon dioxide
- Reliable
- Not much waste

**Con**
- Waste is very dangerous
- A lot of money spent on safety
- Weapons?

Yucca Mountain

- Some of the USA nuclear waste is buried in Yucca Mountain

Wind

Geothermal

- Cold water pumped down
- Steam and hot water

Solar

Wave Power
Currently – burning fossil fuels increases pollution in the atmosphere such as carbon dioxide. Plus is non-renewable. Smog, Acid Rain, etc.

- Alternative renewable energy sources are gaining in popularity because they do not contribute pollution and they are more sustainable methods of energy production.

Computer Lab: Alternative Energy
- Didn’t finish your table yesterday?
  - Pages 690 – 697 in your textbook can help!
  - Back computers are on for those that need to finish their online quizzes.

Quiz tomorrow on Energy!
Use the study guide to help prepare!
Notice the review items from pollution and fossil fuels ☺