Study Guide

**Energy**

DOK (Depth of Knowledge) 1, 2 and 3 Type Questions

* Describe 3 types of energy (mechanical, thermal, chemical, electrical, nuclear, electromagnetic)
* Units of energy and power (kwh/year…..)
* Math Problems involving energy
* Describe the First and Second Law of Thermodynamics
* Know the difference & examples of renewable and nonrenewable energy sources
* What are tar sands, oil shale and what are some environmental issues with it?
* Describe 2 primary methods of how coal is mined
  + Be sure to know environmental and anthropogenic pros and cons of both
* Where is oil usually found (porous sandstone) and how is it extracted?
  + Pros and cons for drilling in Arctic National Wildlife Refuge
* Know the process of fracking and list pros and cons.
* List pros and cons of using: coal, oil, natural gas, and nuclear
* Describe what CAFÉ standards are.
* Describe how solar energy is produced and list pros and cons
* Describe a hydrogen fuel cell and list pros and cons
* Describe what biomass is and list pros and cons
* Describe what algal biofuel is and list pros and cons
* Describe what tidal energy is and list pros and cons
* Describe what geothermal energy is and list pros and cons.
* Study your notes, close readings and tables created in class.
* Be sure to watch the two videos on the website (hchscollier.weebly,com)

Don’t wait until the last minute to study. Dedicate 30 minutes per night to study. The FRQ is Wednesday and the multiple choice is Thursday. There will be 2 free response questions (one with math) and there will be 55-60 multiple choice questions. You can do this. Studying leads to knowledge, knowledge leads to quick understanding, quick understanding leads to **CONFIDENCE**!