How Humans Impact the Lithosphere – Learning Goals

**Essential Questions:**

1. How are the human methods to acquire traditional energy sources alike?
2. What are some feasible alternative energy sources for Florida?
3. How does each form of alternative source capture energy?
4. How much does each alternative energy source contribute to the total energy resource by percentage?
5. How can the use of alternative energy technologies affect Florida?
6. How do human activities affect the lithosphere?
7. How is data analysis used to prevent hazards to human?

**Primary Words: (to be put into word maps)** (Type these into a Google Doc or write on your own paper and share/ turn in with the Learning Objectives)

– Fracking - biofuel - surface mining - fuel cell - photovoltaic - subsurface mining - cogeneration - smelting

**Secondary Words:**

Traditional - alternate energy technology - hydropower - generate - percentage - social economic - alternate energy source – Fission – Fusion - sinkhole

**Learning Objectives:** By the end of this unit I will be able to… (type the answers to these on a Google Doc or on your own paper and share /turn in before the test)

1. List alternative energy technologies for Florida such as nuclear, hydroelectric, wind, solar, and biofuel.
2. Discuss how each alternative energy source is captured and put to work.
3. Examine how much energy is from conventional resources.
4. Evaluate the social and economic issues associated with alternative energy sources.
5. Compare the methods of obtaining energy resources: harvesting (peat and wood), mining (coal and uranium/plutonium), drilling (oil and natural gas) and the effect of these activities on the environment.
6. Explain ways to mitigate detrimental human impacts on the Lithosphere and maximize sustainable use of natural resources.
7. Explain the effects of human activity on shorelines, especially in development and artificial stabilization efforts.
8. Explain the effects of human activity on mountainsides, especially in development and artificial stabilization efforts.
9. Examine the various methods humans use to acquire traditional energy sources such as peat, coal, oil, natural gas, nuclear fusion materials and wood
10. APES: Explain how reduced fossil fuels would impact the accumulation of CO2 in the atmosphere.
11. APES: Describe what the primary form of alternative energy is that is being studied world-wide today.
12. APES: Describe what the benefits and downsides are to increasing energy efficiency.