**Chapter 16**

1. What is energy efficiency? What % of US energy is unnecessarily wasted?
2. List 4 widely used energy inefficient technologies.  What are the advantages of reducing energy waste?
3. What is cogeneration?  What are 4 ways to save energy and money in industry? What is a smart grid?
4. How does an electric car STILL use conventional energy?
5. Why do we need to design better batteries?
6. What are fuel cells and their advantage?
7. What is a living roof and its advantage?
8. What are 5 advantages to relying on renewable energy and what 3 factors are holding us back?
9. What are *solar thermal systems? How are they used?*What are the advantages and disadvantages?
10. What is a *solar cell (photovoltaic or PV cell)*?  What are the advantages and disadvantages? How do solar cells help people that live in less developed countries?
11. What is hydropower?  What are the advantages and disadvantages ? What is a micro hydropower generator? What is the potential for using Tides and waves?
12. What are the advantages and disadvantages of using taller wind turbines?  Offshore wind farms is a fast growing energy source. Name a few countries that use it?  What are some negatives to the farms? List the advantages and disadvantages to wind power.
13. What is biomass?  What are the advantages and disadvantages to using biomass?
14. What are the advantages and disadvantages to using Biodiesel and Ethanol?
15. What is geothermal energy?  Describe how each of the following types of geothermal energy works: *Geothermal heat pump, hydrothermal reserves and hot dry rock.*
16. What is fuel cell energy (Hydrogen as fuel? What are the advantages and disadvantages for using this energy to produce electricity and power cars?