
The Magic of Ceramics -- Study Guide, Chapter 12

1. How much has our energy consumption increased since 1950?
2. What effect has this had on airborne pollutants?
3. What are the key pollutants that result from burning fossil fuels?
4. How is fiberglass insulation produced?
5. Give an example of the benefit of using fiberglass insulation in homes and buildings.
6. What types of lighting consume less electricity per amount of light emitted than incandescent bulbs?
7. How much more efficient are CFL and LED lighting?
8. What are some uses of LED lighting?
9. How many LEDs were produced by Showa Denko per month in 2008?
10. What has been done since 1965 to improve the fuel efficiency (miles per gallon) of automobiles?

11. Have technology advances kept up with population growth? Explain.
12. What can students do, even in the elementary grades, to solve the problems of air pollution?
13. How does a ceramic igniter replace a pilot light in a gas appliance?
14. What is a heat exchanger?
15. How can a heat exchanger make a process more efficient?
16. How are ceramics necessary in the nuclear power industry?
17. How does a fuel cell work?
18. How does it conserve energy and reduce pollution?