LeChateliers/EEE

Directions:
Pick ONE of the following topics listed. However, if you find something else that you would like to research that involves our current topic, let me know ASAP and you can probably do it!

Requirements:

1. Typed
2. Foldable (there are many kinds…just ask for a sample brochure) or a pamphlet
3. Must be creative and colorful.
4. Must answer the question thoroughly, yet so an 8th grader could read it!
5. Bibliography (follow guidelines on www.molelady.com (project page- inquiry project or element mystery

Topics:

1. Investigate the effects of different catalysts on the decomposition of hydrogen peroxide.
2. Report on a catalyst used in industrial reactions. How does the catalyst operate on a molecular level?
3. What are the problems involved in the scale-up of a laboratory reaction to an industrial process?
4. What contributions did Josiah Gibbs make to chemical reaction thermodynamics? Why was his work relatively unrecognized for almost 20 years?
5. Discuss four common spontaneous reactions. What makes them spontaneous? Include equations.
6. What effect do catalysts and temperature have on non spontaneous reactions? Cite some examples.
7. What contributions did Henri Le Chatelier make to the understanding of equilibrium and reaction rates? How did his discoveries help industrial chemists?
8. What chemical reactions are involved in smog formation? Compare the local, regional, and global effects of photochemical smog.
9. What are the major sources of air pollution in your community? How is it being controlled? What are the tangible and intangible costs of air pollution?