CHEMISTRY PROJECT: CHEMICAL REACTIONS RESEARCH

Points: 50
Due Date: _____

Background information

As we study chemical reactions, is it important to recognize that chemical reactions are occurring all around us and inside us every day. Chemistry is the foundation of other sciences such as biology, physics, and earth science. To study chemical reactions is to study the world in detail. Learning about chemical reactions will improve students' understanding of all aspects of life around them.

Research

Students will research five chemical reactions or chemical discoveries online. These reactions and discoveries may be from any field of science: pharmacy, medicine, environmental science, geology, astronomy, biology, botany, physics, etc.

All topics must be approved by the teacher in order to do the report and presentation. This prevents too many students from researching the same topic. Once a student commits to a topic, he or she cannot change it. Unapproved topics will not be scored.

Report and presentation

A one-page summary of each reaction or discovery must be submitted, along with the scoring rubric on the back of this sheet. The summaries must be typed, double spaced, using font 12 Times New Roman. All relevant chemical reactions must be included. See the scoring rubric for details. Papers must be typed or they will not be accepted.

As always, you must submit original work – no copying text or plagiarizing.

Each student will give a short oral presentation in class. Students are not allowed to read from your paper. You need to share your findings with your peers. You may choose to present a poster or PowerPoint along with your oral presentation. See the scoring rubric for details.

This project is <u>not</u> eligible for point redemption.

Ideas and Suggestions

1) What is acid rain? How does it form, and what impact does it have on the environment?
2) Why did the Hindenburg explode?
3) How does the burning of fossil fuels contribute to the greenhouse effect?
4) How are chemical reactions involved in the manufacture of food items, plastics, or pharmaceuticals?
5) How does lead poisoning affect the body?
6) Explain how chemical reactions are used in forensic science.
7) How do sinkholes work? Why are they a problem in our part of the state?
8) What effect does the overuse of fertilizers have on the environment?
9) How does radiation treatment work on cancer cells?
10) Explain how stars produce their energy.

SCORING RUBRIC: CHEMISTRY INTERNET PROJECT

NAME _____

PERIOD # _____

POINTS EARNED

RUBRIC SUBMITTED (2 pts. total) 0 2

QUALITY OF PAPER, FIVE SUMMARIES (10 pts. total)

- Double spaced 0 2
- Font size = 12 0 2
- Font style = Times New Roman 0 2
- Neat layout 0 2
- Proper length (1 page per summary) 0 2

ACCURACY AND COMPLETENESS (30 pts. total)

0 = entry not included
1 = basic or somewhat inaccurate information, no reaction included, brief
3 = accurate reaction but incomplete information
5 = accurate reaction and complete information

- Chemical Reaction or Discovery #1 0 1 3 5
- Chemical Reaction or Discovery #2 0 1 3 5
- Chemical Reaction or Discovery #3 0 1 3 5
- Chemical Reaction or Discovery #4 0 1 3 5
- Chemical Reaction or Discovery #5 0 1 3 5
- Sources cited on each page in APA or MLA format 0 5

QUALITY OF PRESENTATION (8 pts. total)

- Timing: between 2-5 minutes 0 2
- Ease of understanding 0 1 3
- Neatness (if visual aid) or Clarity (if auditory) 0 1 3

TOTAL: _____ / 50