

Homework 8

Complete Part I first, by taking notes that you will keep for yourself. (*Do not turn these in.*) Type up your answers to each of the questions in Part II and submit it in one double-spaced, Word document with your name on the top under the title. Use 12-point Times New Roman Font with 1" margins on all sides. If you have to do a calculation, solve the problem by hand on a separate sheet of paper. Then take a picture of your work and paste it into your word document in an appropriate place. When you are done upload this into the [Dropbox on Blazeview](#). If you are unable to use Word for the assignment, you may use another software package and upload a pdf instead.

PART I: Notes

1. Read and take notes on the video "Chemical Energy".

PART II: Assignment (25 points total)

1. Which one of John Dalton's Atomic theory statements is incorrect? Why is it wrong? (4 *points*)
2. What is a chemical reaction? (3 *points*)
3. Describe in your own words the three types of chemical bonds. (6 *points*)
4. What are the key differences between acids and bases? (4 *points*)
5. Using stoichiometry, balance the following reactions: (2 *points each*)
 - a. $\text{CO} + \text{O}_2 \rightarrow \text{CO}_2$
 - b. $\text{Na} + \text{N}_2 \rightarrow \text{NaN}_3$
 - c. $\text{Fe} + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3$
 - d. $\text{O}_3 \rightarrow \text{O}_2$