POSNACK
SCHOOL

Summer AP Chemistry Assignment

School Year 2019-2020

Textbook: CHEMISTRY by Zumdahl and Zumdahl 9th Edition

Dear Students,

Welcome to AP Chemistry! This class is going to be extremely interesting, challenging, fast-paced, and of course, FUN!. It is impossible to cover all of the material required by the AP College Board in the time allotted, so you have some work to do over the summer. **The due date for this summer assignment is the first day of class August 2019 (or sooner).** Please be prepared to take a summative assessment on this material by the end of the first week of school.

Directions: Please use the textbook Zumdahl and Zumdahl 9th Edition to complete the questions from listed pages.

Chapter 2

1. Explain who the Scientists J.J. Thomson, Millikan, Ernest Rutherford, and Niels Bohr were in terms of their experiments and what their experiments discovered.
2. Define: Dalton's Atomic Theory, Law of Conservation of Mass, Law of Definite Proportions, and Law of Multiple Proportions
3. Pg. 73 questions #9, 11, 12, 19, 21, 22
4. Pg. 74 question #35
5. Pg. 76 questions #61, 63, 69, 75, 76

Chapter 3

1. Pg. 128 #44
2. Pg. 129 #51, 70
3. Pg. 130 # 74, 89
4. Pg. 131 #99
5. Pg. 132 #106, 117

Chapter 4

1. Pg. 182 # 45, 47 (Write the CE, TIE, and NIE) for these

Chapter 5

1. Read Sections 5.1 - 5.3
2. Pg. 233 # 6, 9, 11
3. Pg. 235 #37
4. Pg. 236 # 43, 45, 48

Chapter 7

1. Read Sections 7.1 - 7.4, sections 7.11 - 7.12
2. Pg. 342 #39, 40, 41
3. Pg. 345 #85
4. Pg. 346 #105, 107

Short Answer:

5. What is the trend in Ionization Energy as you go down the Group on the Periodic Table?

   As you go across a Period?

6. What is the trend in Electron Affinity as you go down the Group on the Periodic Table? As you go across a Period?
7. What is the trend in Atomic Radii as you go down the Group on the Periodic Table? As you go across a Period?

Chapter 8

1. Read Chapter 8 to refresh your memory of Lewis Dot Structures (LDS) and Valence Shell Electron Pair Repulsion (VSEPR) molecular geometry

Short Answer

2. What is the trend in Atomic Radii of **ions** as you go down the Group on the Periodic Table? As you go across a Period?