

Chemistry CP

Name:

Atomic Structure (Ch. 3.3 & 3.5)

Section:

Assignment	Due Date
1. Learn the names and symbols of elements 11-20 (1 column)	Wednesday, 9/28
2. Learn the names and symbols of elements 11-20 (1 column)	Thursday, 9/29
3. Handout	
4. Learn the names and symbols of elements 11-20 (1 column)	Friday, 9/29
5. Complete p. 70 #1-7	
6. Complete pp. 92-93 #19, 28, 30, 46	Monday, 10/3
7. Google Classroom assignment	Tuesday, 10/4
8. Study for quiz	Wednesday, 10/5
9. Learn the names and symbols of elements 21-30	Thursday, 10/6

After studying chapter 3.3 and 3.5, you should be able to:

- Distinguish among protons, neutrons, and electrons in terms of their relative masses and charges.
- Explain the structure of an atom, including the location of the proton, neutron, and electron with respect to the nucleus.
- Explain how atomic number identifies an element.
- Summarize the observed properties of cathode rays that led to the discovery of the electron.
- Summarize Rutherford's experiment that led to the discovery of the nucleus.
- Compare and contrast the plum pudding and nuclear models of the atom.
- Explain how isotopes of an element differ.
- Explain, using concepts of isotopes, why the atomic masses of elements are not whole numbers.
- Infer the number of protons, electrons, and neutrons using the atomic number and mass number of an element.
- Describe the formation of ions from their parent atoms.
- Compare and contrast cations and anions.
- Infer the numbers of protons, electrons and neutrons using the atomic number, mass number and charge of an ion.

Some Useful Websites

<http://micro.magnet.fsu.edu/electromag/java/rutherford/> A simulation of the classic experiment

<http://www.aip.org/history/electron/jjhome.htm#cathtube> Cathode ray tubes

<http://www.aip.org/history/electron/jjthomson.htm>

<http://www.nyu.edu/pages/mathmol/textbook/atoms.html>

<http://www.sciencegeek.net/Chemistry/taters/directory.shtml> Look at the Unit 1 activi

<http://www.norton.com/college/chemistry/chem4/chemtours.aspx> Super tutorials on several topics—check Chapter 2

<http://particleadventure.org/other/history/index.html> Timeline for the history of particle physics

<http://www.mhhe.com/physsci/chemistry/essentialchemistry/flash/ruther14.swf> gold foil experiment

<http://pediaa.com/difference-between-cation-and-anion/>