

Name _____ Period _____

CP Chemistry of the Earth

Assignment 4B – Atomic Structure Review (*Part 1 – Electrons and the Octet Rule*). 20 Points

Define the following terms based on the atomic structure review

Bohr Model (<i>of the atom</i>)	Electron Cloud Model (<i>of the atom</i>)
Inner Electrons	Outer (<i>Valence</i>) Electrons

Answer the following questions based on the atomic structure

What structure is in the center of the atom, and what is contained in that structure?	What are the role of the outer (<i>valance</i>) electrons in the atomic structure?
What is the octet rule for atomic structure?	What is a lewis dot structure, and what is a lewis dot structure used for?

The following is a chart showing the group and valance electrons w/ Lewis Dot Structures

Group Number	1A 1	2A 2	1B – 10B	3A 13	4A 14	5A 15	6A 16	7A 17	8A 18
Valance Electrons (e ⁻)	1	2	2	3	4	5	6	7	8
Lewis Dot Structure	X•	•X•	•X•	•X•	•X•	•X•	:X:	:X:	:X:

Complete the following chart based on the chart above

Element Symbol	Mg	S	B	K				
Element Name					Oxygen	Xenon	Calcium	Sodium
Group Number								
Valance Electrons								
Lewis Dot Structure*								

* Copy and Paste from Table Above