WKS 8-1 – Chem H **NAME** _____
Electron Dots & Ionic Bonding **Period** _____ **Date** _____

Read pg. 170, "Electron Dot Notation," pp. 176-178, "Ionic Bonding and Ionic Compounds."

1. Draw Lewis (Electron) Dot diagrams for the following atoms:

a. Sr	b. Kr	c. Si	d. Se
e. Cs	f. In	g. Cl	h. Sb

2. What is a chemical bond?

3. Why do ions form?

4. Describe the formation of both positive cations and negative anions.

5. What is an ionic bond?

6. What is lattice energy and what does it indicate about an ion bond?

7. The first ionization energy for sodium is lower than that for magnesium. The 2nd IE's for both elements are larger than their 1st IE's, but Na's 2nd IE is MUCH larger than that of Mg. Explain.

8. For a particular element, the following data are obtained: IE_1 = 578 kJ/mol, IE_2 = 1820 kJ/mol, IE_3 = 2750 kJ/mol, IE_4 = 11,600 kJ/mol, IE_5 = 14,831 kJ/mol & IE_6 = 18,377 kJ/mol. Which element could this be: Na, Mg, Al, Si, P, or S? Explain

9. *For the following questions draw the Lewis Dot structures before and after transferring electrons. Determine the formula of the resulting compound. Remember-- you may need to add extra atoms sometimes (continued on back)*

Atoms	**Lewis Dots of atoms Before transferring electrons** ***(Show arrows of e^-'s transferring)***	**Ions formed after transferring electrons** ***(Show correct number of ions and their charges)***	**Formula of compound**
a. K + S		→	
b. Ba + O		→	
c. Al + Cl		→	
d. Sr + P		→	
e. In + As		→	
f. Rb + N		→	