

## Noble Gas Envy HW

Read and outline (Cornell style) **Section 8.2** in your chemistry textbook. Then answer the following assessment questions:

1. What is an ionic bond?
2. How does an ionic bond form?
3. List 3 physical properties associated with an ionic bond.
4. Describe and illustrate the arrangement of ions in a crystal lattice.
5. Which noble gas is closest to calcium, Ca, on the periodic table? Will Ca have to lose or gain valence electrons in order for it to have a noble gas configuration? How many will it lose or gain?
6. When chlorine, Cl, gains an electron to become a chloride ion with a -1 oxidation number/ charge, it ends up with the noble gas electron configuration of argon. Why doesn't it become an argon atom?
7. Write the appropriate ion oxidation numbers for each compound. See if you can figure out the symbol for the resulting compound. (Hint: The positive and negative charges on the ions must cancel out/ add up to zero.)

Name	Cation	Anion	Compound Symbol
Sodium fluoride	Na <sup>+1</sup>	F <sup>-1</sup>	NaF
Gold trichloride	Au <sup>+3</sup>	Cl <sup>-1</sup>	AuCl <sub>3</sub>
Potassium bromide			
Calcium chloride			
Silver bromide	Ag <sup>+1</sup>	Br <sup>-1</sup>	AgBr
Sodium iodide			
Beryllium fluoride			
Magnesium iodide			