Name: _____

Unit 03 – BONDING	3.2 - Assignment

Fill in the first table by following the directions below.

- ➢ Draw the electron dot structure of the atoms.
- ➢ When the atom forms an ion, it either gains or loses electrons. Write if it gained or lost electrons and how many electrons.
- ➢ Turn each neutral atom into an ion.
- ➢ Ions can either be positive or negative. Write the type of ion formed.

1. A positive ion is called a _____ while a negative ion is called an _____.

- ➢ Does the atom from which the ion formed have a high or low electronegativity?

	2.	3.	4.	5.	6.	7.
Atom	sodium	sulfur	calcium	oxygen	aluminum	bromine
e^- dot structure of atom						
Gained/lost & # e-						
Ion Symbol						
Type of ion						
electronegativity						

Combine the following ions to form an ionic compound by filling out the table below.

- ➢ Draw the electron dot structures for how the two ions form a compound (show how the electrons move/are donated.)
- ➢ In the math column, show how the (charge) and the (# of ions) for the positive ions equals and cancels out the (charge) and the (# of ions) for the negative ions.
- ➢ Write the formula for the ion combination in the final column.

	Cation Symbol	**Anion Symbol**	**Electron Dot Structure of Ion Formation**	**Math**	**Formula**	**Name**
8.	Na^{1+}	S^{2-}				
9.	Ca^{2+}	O^{2-}				
10.	Al^{3+}	Br^{1-}				

11. **Explain** why elements that make positive ions occur on the left side of the periodic table while those that make negative ions occur on the right? Use the following terms in your explanation: cation, anion, metal, nonmetal.