

Name _____ Period _____

CP Chemistry of the Earth

Assignment 4D – Basic Ionic Bonding (*Part 1*)

20 Points

Answer the following questions based on the ionic bonding noteset

List the groups that produce a + ion (<i>cation</i>)		List the groups that produce a - ion (<i>anion</i>)	
What is the difference between the following		How many valence e ⁻ does each atom have?	
Representative Metal	Transition Metals	Metal Ion (+)	Non-Metal Ion (-)

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
Ion Charge	+1	+2	Var.	+3	+4	-3	-2	-1	0

*Complete the following table for the basic ionic compounds.*Ionic Compound = X_aY_b X = Metal, Y = Non-Metal, a = Cation (+) Charge, b = Anion (-) Charge

Metal	+__	Non-Metal	-__	# X	+__	+	# Y	-__	= 0	X	a	B	y
K		F				+			= 0	K		F	
Be		I				+			= 0	Be		I	
V ³⁺		Cl				+			= 0	V ³⁺		Cl	
Pb ⁴⁺		Br				+			= 0	Pb ⁴⁺		Br	
Na		O				+			= 0	Na		O	
Ag ¹⁺		N				+			= 0	Ag ¹⁺		N	
Cu ¹⁺		Br				+			= 0	Cu ¹⁺		Br	
Fe ¹⁺		S				+			= 0	Fe ¹⁺		S	