Naming Compounds HW #1 name: _____

Fill in all of these boxes properly. Get out your periodic table to do this.
2 examples provided, one METAL that makes a + cation, and one NONMETAL that forms a — anion.

atom	# protons (atomic number)	ground state e^- configuration	ion e^- configuration (noble gas it's isoelectric to?)	#electrons in ion	ionic symbol
Li	3	2-1	2 (He)	2	Li^{+1}
F	9	2-7	2-8 (Ne)	10	F^{-1}
Be					
Mg					
K					
Cl					
N					
O					
Na					
P					
S					
Mg					
Br	35	2-8-18-7	2-8-18-8 (Kr)	36	Br^{-1}

Compounds HW #2 Naming simple ionic compounds name: _____

1st name rule: name the metal cation, it is always the same name as the metal atom
2nd name rule: name the non-metal anion, but change the ending to be -ide.

Examples: Oxygen becomes oxide, sulfur becomes sulfide, bromine becomes bromide (etc.).

No matter what the ratio of cations to anions is, we use the single metal name and the single anion name.

For each pair of metals and non metals, write the ions symbols with charges, write the neutral formula for the ionic compound that they form, then, name the compound.

Metal	Non-metal	Cation that forms	Anion that forms	Compound that forms	Compound name
Ba	S	Ba^{+2}	S^{-2}	BaS	Barium sulfide
Rb	N	Rb^{+1}	N^{-3}	Rb_3N	Rubidium nitride
Li	O				
Al	F				
Sr	S				Strontium sulfide
Na	Br				
Ca	O				
Cs	P				Cesium phosphide
Be	O				
Mg	N	Mg^{+2}	N^{-3}		
K	O				
Na	P				Sodium phosphide

Compound HW #3 Naming Transitional Metal compounds name: _____

Formula	Cation	Anion	name	Formula	Cation	Anion	name
CuS	Cu^{+2}	S^{-2}	Copper II sulfide				tin (IV) fluoride
Ni_2O_3							niobium (V) phosphide
PbO_2							bismuth (III) chloride
PbO							iron (III) oxide
$TiCl_4$							iron (II) oxide
CrO_3							gold (I) sulfide
MnS_2							gold (III) selenide
Mn_2S_7							yttrium oxide
TaI_5							silver sulfide

Compounds HW #4 Naming Molecular Compounds **2 pages** name: _____

Write out the 10 Latin prefixes to use to count atoms from one to ten					

	Write names for these		Write formulas for these
N_2O_5		Hydrogen mono iodide	
SO_3		silicon difluoride	
PCl_3		dinitrogen monoxide	
NF_4		fluorine monobromide	
PBr_3		arsenic trichloride	
CCl_4		sulfur dioxide	
H_2S		phosphorous pentabromide	
I_4F_7		diarsenic decabromide	
$SeCl_4$		Tri-tellurium dichloride	

Using the “T” chart and the selected oxidation numbers, show all possible compounds (formulas and names) for nitrogen and oxygen.

N	O

Using the “T” chart and the selected oxidation numbers, show all possible compounds (formulas and names) for phosphorous and fluorine.

As	Cl

Naming Compounds Homework #5 name: _____

Fill in all blanks correction, the first 2 pairs are examples for you. 2 pages…

	cations	anions	formulas
Ion formulas	Fe^{+2}	NO_3^{-2}	$Fe(NO_3)_2$
Ion names	iron (II)	nitrate	
Ion formulas	Fe^{+3}	OH^{-1}	$Fe(OH)_3$
Ion names	iron (III)	hydroxide	
Ion formulas			AuOH
Ion names			
Ion formulas			$Ir(NO_3)_4$
Ion names			
Ion formulas			Li_3P
Ion names			
Ion formulas			$Al_2(SO_4)_3$
Ion names			
Ion formulas			$(NH_4)_2O$
Ion names			
Ion formulas			$(NH4)_3N$
Ion names			

continue	cations	anions	formulas
Ion formulas			
Ion names	Osmium III	carbonate	
Ion formulas			
Ion names	Osmium IV	permanganate	
Ion formulas			
Ion names	Tin II	chlorate	
Ion formulas			
Ion names	Tin IV	chlorite	

formulas	STOCK NAMES
	dinitrogen trisulfide
	carbon tetrabromide
	hydrogen monoiodide
	silicon tetrafluoride
	boron mononitride
	carbon diselenide

formulas	STOCK NAMES
AsF_3	
SI_4	
PBr_5	
B_2O_3	
SiO_2	
$SeCl_6$	