Mono-Atomic Ions & Ionic Compound Formation

name

When a metal atom loses one or more electrons it becomes a positive ion called a cation.
When a nonmetal gains one or more electrons it becomes a negative ion called an anion.

Atoms will lose or gain electrons to change their ground state electron configurations into noble gas configuration. When an ion forms, it is said to be ISOELECTRIC to a noble gas, meaning it now has an electron configuration that matches the "perfect" noble gas configuration.

Add the IONIC CHARGE for each metal and each nonmetal into the table. Then, crisscross and write the formula for each compound. Finally, write the NAME for each compound.

When naming ionic compounds (think about NaCl, sodium chloride), the cation goes first, using just the name of the metal atom. The anion goes second, and change the name of the nonmetal atom to —ide. Oxygen becomes oxide, nitrogen becomes nitride, and bromine becomes bromide, etc. Use the first three as examples.

A	Li^{+1}	F^{-1}	LiF	lithium fluoride
B	Na^{+1}	O^{-2}	Na_2O	sodium oxide
C	K^{+1}	N^{-3}	K_3N	potassium nitride
1	Rb	Cl		
2	Cs	S		
3	Fr	P		
4	Be	Br		
5	Mg	O		
6	Ca	N		
7	Sr	I		
8	Ba	S		
9	Al	P		

D	Li	Br	LiBr	lithium bromide
10	Na	O		
11	K	P		
12	Rb	I		
☺	Cs	O		
14	Fr	P		
15	Be	Cl		
16	Mg	S		
17	Ca	P		
E	Sr	S	SrS	strontium sulfide
18	Ba	P		
19	Al	F		
20	Li	O		
21	Na	N		
22	K	Cl		
23	Rb	S		
F	Cs	P	Cs_3P	cesium phosphide
24	Fr	Br		
25	Be	O		