

## Rules for Naming Compounds

1. Name the 1<sup>st</sup> element as seen on periodic table.
2. Name the 2<sup>nd</sup> element, but change the ending to **-ide**.
3. If the 1<sup>st</sup> element is a **metal**, then the compound is **ionic** and the name is **complete**.
4. If the 1<sup>st</sup> element is a **nonmetal**, then the compound is **covalent** and you add **prefixes**.

1- mono

\*6- hexa

2- di

\*7- hepta

3- tri

8- octa

4- tetra

9- nona

5- penta

10- deca

\*\*\* Exception: **DO NOT use Mono for the first element**\*\*\*

### Examples:

1. Metals are on the (left/right) side of the periodic table.
2. A Metal and Nonmetal together makes a(n) (ionic/covalent) compound which (does/does not) use prefixes.
3. Fill in the table below:

	Is there a metal present?	Ionic or Covalent?	Add prefixes?	Name	Chemical Formula
A	Yes	Ionic	No	potassium oxide	K <sub>2</sub> O
B	No	Covalent	Yes	disulfur monoxide	S <sub>2</sub> O
C	No	Covalent	Yes	<del>X</del> nitrogen trichloride	NCl <sub>3</sub>
D	Yes	Ionic	No	aluminum chloride	AlCl <sub>3</sub>
E	No	Covalent	Yes	diphosphorus pentoxide	P <sub>2</sub> O <sub>5</sub>

	Is there a metal present?	Ionic or Covalent?	Add prefixes?	Name	Chemical Formula
F	No	Covalent	Yes	<del>X</del> carbon <u>mono</u> oxide	CO
G	No	Covalent	Yes	<u>hepta</u> nitrogen <u>tri</u> chloride	N <sub>7</sub> Cl <sub>3</sub>
H	Yes	Ionic	No	gallium chloride	GaCl <sub>3</sub>
I	No	Covalent	Yes	<u>di</u> nitrogen <u>tri</u> oxide	N <sub>2</sub> O <sub>3</sub>
J	Yes	Ionic	No	lithium sulfide	Li <sub>2</sub> S
K	Yes	Ionic	No	gallium oxide	Ga <sub>2</sub> O <sub>3</sub>
L	No	Covalent	Yes	<u>di</u> carbon <u>hexa</u> bromide	C <sub>2</sub> Br <sub>6</sub>
M	Yes	Ionic	No	aluminum oxide	Al <sub>2</sub> O <sub>3</sub>
N	Yes	Ionic	No	strontium nitride	Sr <sub>3</sub> N <sub>2</sub>
O	Yes	Ionic	No	barium sulfide	BaS
P	Yes	Ionic	No	potassium nitride	K <sub>3</sub> N
Q	No	Covalent	Yes	<u>tri</u> phosphorous <u>pent</u> oxide	P <sub>3</sub> O <sub>5</sub>
R	No	Covalent	Yes	<del>X</del> nitrogen <u>mono</u> oxide	NO
S	No	Covalent	Yes	<u>tri</u> sulfur <u>hexa</u> fluoride	S <sub>3</sub> F <sub>6</sub>
T	Yes	Ionic	No	calcium bromide	CaBr <sub>2</sub>
U	No	Covalent	Yes	<u>tetra</u> phosphorous <u>deco</u> xide	P <sub>4</sub> O <sub>10</sub>
V	Yes	Ionic	No	magnesium oxide	MgO
W	No	Covalent	Yes	Diselenium Hexaiodide	Se <sub>2</sub> I <sub>6</sub>
X	No	Covalent	Yes	Tetraphosphorous Pentasulfide	P <sub>4</sub> S <sub>5</sub>
Y	No	Covalent	Yes	Trinitrogen Heptafluoride	N <sub>3</sub> F <sub>7</sub>
Z	No	Covalent	Yes	Dihydrogen Monoxide	H <sub>2</sub> O