

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

### Naming Compounds Classification Activity

**OBJECTIVE:**

- By looking at the composition (*make-up*) of a chemical formula, students should be able to accurately classify compounds and name them using the appropriate set of naming rules

**Classify the following compounds as either:**

**IONIC COMPOUND**

- METAL** / Nonmetal
- METAL** / Polyatomic Ion
- Transition **METAL** / Nonmetal
- Transition **METAL** / Polyatomic Ion

**COVALENT COMPOUND**

- Nonmetal / Nonmetal
- Diatomic Molecule
  - $\text{Br}_2$   $\text{I}_2$   $\text{N}_2$   $\text{Cl}_2$   $\text{H}_2$   $\text{O}_2$   $\text{F}_2$

**ACID** (*starts with hydrogen (H)*)

- H + Element
- H + Polyatomic Ion

<u>Compound</u>	<u>Ionic / Covalent / Acid</u>	<u>Further Classification (see above)</u>
1. <u>MgBr<sub>2</sub></u>	_____	_____
2. <u>CO<sub>2</sub></u>	_____	_____
3. <u>K<sub>3</sub>PO<sub>4</sub></u>	_____	_____
4. <u>F<sub>2</sub></u>	_____	_____
5. <u>CuCl<sub>2</sub></u>	_____	_____
6. <u>Na<sub>3</sub>SO<sub>4</sub></u>	_____	_____
7. <u>H<sub>3</sub>PO<sub>4</sub></u>	_____	_____
8. <u>Pb(NO<sub>3</sub>)<sub>2</sub></u>	_____	_____
9. <u>PCl<sub>3</sub></u>	_____	_____
10. <u>HCl</u>	_____	_____
11. <u>CaO</u>	_____	_____
12. <u>H<sub>2</sub></u>	_____	_____

**ASSIGNMENT:**

On the back of this page, construct a step-by-step flowchart that you could use to help classify chemical compounds.

***THINGS TO THINK ABOUT!!***

- What question(s) would you ask to determine whether you have an IONIC, COVALENT, or ACID compound?
- What question(s) would you ask to determine how to further classify your compounds into the categories listed above?