

Name: _____

Date: _____

Notes: Naming Ionic Compounds

What happens to the electrons of *metals*? _____

What kind of charge do metals have? _____

What do we call positively charged ions? _____

Define **oxidation**: _____

What happens to the electrons of *nonmetals*? _____

What kind of charge do nonmetals have? _____

What do we call negatively charged ions? _____

Define **reduction**: _____

What elements are contained within ionic compounds? _____

Use your periodic table to predict the charges of the following ions:

P _____ Ne _____ Ca _____ Be _____ I _____ He _____

Na _____ Mg _____ Br _____ O _____ Li _____ F _____

S _____ K _____ N _____ Cs _____ Cl _____ Xe _____

Rules for naming ions:

1. Metals: _____

2. Nonmetals: _____

Example: _____

Write the names of the ions formed when each of the elements below gain or lose electrons:

sulfur: _____

lithium: _____

nitrogen: _____

bromine: _____

potassium: _____

chlorine: _____

oxygen: _____

hydrogen: _____

Write the name of the following polyatomic ions:

SO_4^{-2} _____

CO_3^{-2} _____

MnO_4^- _____

SO_3^{-2} _____

OH^- _____

NO_3^- _____

STEPS FOR NAMING AN IONIC COMPOUND:

1. _____
2. _____

Write the name of the following ionic compounds:

CaCl_2 _____

K_2S _____

KMnO_4 _____

BaO _____

NH_4Cl _____

CsCl _____

MgSO_4 _____

NaBr _____

AlP _____

STEPS FOR DETERMINING THE FORMULA OF AN IONIC COMPOUND:

1. _____
2. _____
3. _____

Write the formula of the following ionic compounds based on their names. (Show all of your work by writing each ion and then writing the correct formula.):

potassium iodide _____

tin (IV) chloride _____

barium sulfate _____

sodium chloride _____

strontium sulfide _____

copper (II) carbonate _____

aluminum bromide _____

lithium nitride _____

If the ion ends in *-ide*, it is probably from the periodic table. If the ion ends in *-ate* or *-ite*, it is a polyatomic ion.