

HPS KeyNote - Writing Formulas & Naming Compounds

HPS@SHS Name _____ period _____

1. Atoms are not chemically stable until they have _____.
To do this they _____, _____ or _____ electrons.
2. Ionic compounds occur when a metal _____
to a nonmetal. The metal becomes a _____ (_____), the nonmetal
becomes an _____ (_____).
3. Covalent compounds occur when two _____.
Neither _____ or _____ electrons. Neither becomes an _____.

Ionic Compounds

4. Ionic compounds contain a _____ and a _____.
Metal _____ and becomes a _____.
Nonmetal _____ and becomes an _____.
The _____ is listed first followed by the _____.
When naming nonmetal ions, change the name of the _____ to - _____. Examples:
nitrogen becomes _____ sulfur becomes _____
fluorine becomes _____ oxygen becomes _____
5. Electrons in the outer energy level are called _____.
Metals have between _____.
Nonmetals have between _____.

6. The 5 Steps in Writing an Ionic Compound formula:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

Examples of reduction: _____ becomes _____ and _____ becomes _____.

Ionic Compounds containing Transition Elements

7. Most transition metals have two _____. _____
are used in the _____ to show the
_____. Examples:

Fe⁺² _____ Fe⁺³ _____

Cu⁺¹ _____ Cu⁺² _____

8. Name these compounds:

Fe_2O_3 _____ ZnCl_2 _____

AgCl _____ Cu_3P_2 _____

PbS_2 _____ MnO_2 _____

Ionic Compounds with Polyatomic Ions

9. Polyatomic ions _____.

10. List and name eight common polyatomic ions:

Treat polyatomic ions as you would any ion - _____.

11. When you have more than one of a specific polyatomic ion in a compound you must _____
_____. Write the following formulas:

a. calcium nitrate _____ b. magnesium phosphate _____

c. barium hydroxide _____ d. barium sulfate _____

Covalent Compounds

12. Properties of Covalent Compounds

a. _____

b. _____

c. _____

d. _____

e. _____ VERY IMPORTANT!!!!!!

Prefixes: _____ 1, _____ 2, _____ 3, _____ 4, _____ 5, _____ 6

A prefix tells you _____.

13. Name: N_2O_3 _____ CH_4 _____

PO_5 _____ S_2F_3 _____

Structure of Ionic Compounds

Structure of Covalent Compounds

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