Name: _____ Date: _____

Notes: Naming Binary Covalent Compounds

Why do atoms share electrons? _____

_____

When are atoms most stable? _____

_____

Define ***covalent bond***: _____

What is the smallest particle of a covalent compound? _____

Decide whether the following compounds contain ionic or covalent bonds:

CO_2____ N_2O _____ PtO _____

$HgCl_2$ _____ SiO_2_____ $SrBr_2$_____

Why is hydrogen unique among the elements? _____

_____

What are the 7 diatomic elements? _____

Define ***binary covalent compound***: _____

_____

Why can we not use the same rules as we did with ionic compounds? _____

_____

How do we deal with this problem? _____

STEPS FOR NAMING A BINARY COVALENT COMPOUND:

1. _____

2. _____

3. _____

Rules for using prefixes:

Rule #1 _____

Rule #2 _____

Rule #3 _____

How would you write each of the prefixes in front of *oxide*?

mono- _____ di- _____ tri- _____

tetra- _____ penta- _____ hexa- _____

hepta- _____ octa- _____ nona- _____

Name of the following binary covalent compounds.

CO_2: _____

CS_2: _____

PBr_3: _____

PBr_5: _____

P_2S_5: _____

N_2S: _____

SiS_2: _____

NBr_3: _____

N_2Cl_4: _____

Prefix	Number
mono	1
di	2
tri	3
tetra	4
penta	5
hexa	6
hepta	7
octa	8
nona	9
deca	10

What is the formula of each of the binary covalent compounds named below.

carbon tetrachloride _____

phosphorous pentachloride _____

dinitrogen monoxide _____

carbon monosulfide _____

boron trihydride _____

disulfur hexabromide _____

silicon disulfide _____

phosphorous triiodide _____

nitrogen trichloride _____

iodine heptafluoride _____

dinitrogen tetroxide _____

phosphorous trichloride _____

carbon monoxide _____

iodine monochloride _____

tetrasulfur tetranitride _____

dihydrogen monoxide _____

chlorine pentafluoride _____

nitrogen dioxide _____