

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

### Naming Binary Covalent Compounds

#### COVALENT MOLECULAR COMPOUNDS- COMPOSED OF NONMETALS ONLY.

1. Name of the "more metallic" element is written first. Since both are nonmetals, choose the element closest to the bottom or left of the periodic table.
2. The ending of the second nonmetal is changed to -ide.
3. Prefixes are added to indicate the number of atoms present. Mono is not used on the first element just write the name if there is only one.

1	MONO	2	DI	3	TRI		
4	TETRA	5	PENTA	6	HEXA		
7	HEPTA	8	OCTA	9	NONA	10	DECA

#### EXAMPLES:

CO is carbon monoxide

CO<sub>2</sub> is carbon dioxide

SF<sub>6</sub> is sulfur hexafluoride

P<sub>2</sub>O<sub>3</sub> is diphosphorus trioxide

- |                                     |                                 |                                    |                               |
|-------------------------------------|---------------------------------|------------------------------------|-------------------------------|
| 1. CO                               | <u>Carbon monoxide</u>          | 2. CO <sub>2</sub>                 | <u>Carbon dioxide</u>         |
| 3. H <sub>2</sub> O                 | <u>dihydrogen monoxide</u>      | 4. NH <sub>3</sub>                 | <u>nitrogen trihydride</u>    |
| 5. CH <sub>4</sub>                  | <u>Carbon tetrahydride</u>      | 6. NO                              | <u>nitrogen monoxide</u>      |
| 7. N <sub>2</sub> O                 | <u>dinitrogen monoxide</u>      | 8. N <sub>2</sub> O <sub>5</sub>   | <u>dinitrogen pentoxide</u>   |
| 9. N <sub>2</sub> O <sub>3</sub>    | <u>dinitrogen trioxide</u>      | 10. PCl <sub>3</sub>               | <u>phosphorus trichloride</u> |
| 11. PF <sub>5</sub>                 | <u>phosphorus pentafluoride</u> | 12. P <sub>2</sub> O <sub>5</sub>  | <u>diphosphorus pentoxide</u> |
| 13. SO <sub>2</sub>                 | <u>sulfur dioxide</u>           | 14. S <sub>2</sub> O <sub>7</sub>  | <u>disulfur heptaoxide</u>    |
| 15. SiCl <sub>4</sub>               | <u>silicon tetrachloride</u>    | 16. B <sub>4</sub> C               | <u>tetraboron monocarbide</u> |
| 17. BN                              | <u>boron mononitride</u>        | 18. CS <sub>2</sub>                | <u>carbon disulfide</u>       |
| 19. SeF <sub>6</sub>                | <u>selenium hexafluoride</u>    | 20. H <sub>2</sub> O <sub>2</sub>  | <u>dihydrogen dioxide</u>     |
| 21. Cl <sub>2</sub> O               | <u>dichlorine monoxide</u>      | 22. N <sub>2</sub> O <sub>4</sub>  | <u>dinitrogen tetraoxide</u>  |
| 23. NI <sub>3</sub>                 | <u>nitrogen triiodide</u>       | 24. AsCl <sub>3</sub>              | <u>Arsenic trichloride</u>    |
| 25. CCl <sub>4</sub>                | <u>carbon tetrachloride</u>     | 26. SeF <sub>2</sub>               | <u>selenium difluoride</u>    |
| 27. SiO <sub>2</sub>                | <u>silicon dioxide</u>          | 28. H <sub>2</sub> S               | <u>dihydrogen monosulfide</u> |
| 29. SF <sub>4</sub>                 | <u>sulfur tetrafluoride</u>     | 30. SO <sub>3</sub>                | <u>sulfur trioxide</u>        |
| 31. XeF <sub>4</sub>                | <u>xenon tetrafluoride</u>      | 32. TeF <sub>6</sub>               | <u>tellurium hexafluoride</u> |
| 33. BBr <sub>3</sub>                | <u>boron tribromide</u>         | 34. XeF <sub>2</sub>               | <u>xenon difluoride</u>       |
| 35. Se <sub>2</sub> Cl <sub>2</sub> | <u>diselenium dichloride</u>    | 36. N <sub>2</sub>                 | <u>dinitrogen (dinitride)</u> |
| 37. ClF <sub>5</sub>                | <u>chlorine pentafluoride</u>   | 38. BrF <sub>3</sub>               | <u>bromine trifluoride</u>    |
| 39. SCl <sub>2</sub>                | <u>sulfur dichloride</u>        | 40. S <sub>2</sub> F <sub>10</sub> | <u>disulfur decafluoride</u>  |