

Naming Molecular Compounds Activity

Table of **molecular** compounds and their formulas:

<u>Name</u>	<u>Formula</u>
dihydrogen monoxide	H ₂ O
carbon dioxide	CO ₂
carbon monoxide	CO
nitrogen dioxide	NO ₂
tetraphosphorus decoxide	P ₄ O ₁₀
carbon tetrachloride	CCl ₄
dinitrogen trioxide	N ₂ O ₃
diphosphorus pentoxide	P ₂ O ₅
iodine heptachloride	ICl ₇

Using those tables, look for patterns in the way molecular compounds are named.

Answer the following questions on a **separate** page. Be detailed and specific with your answers, and use complete sentences.

1. What do you notice about the relationship between the name and the formula?
2. Based on the above names and formulas, can you figure out how molecular compounds are named? In other words, what are the rules for naming molecular compounds?
3. Do you notice anything about the elements that are in molecular compounds? Are they only metals? Only non-metals? Always a metal combined with a non-metal? Explain.
4. Write names for the following molecular compounds: H₂O₂, H₂S, NF₃, NO₃, PCl₅, CCl₄, N₂O₅, PBr₃.
5. Write formulas for the following compounds: sulfur dioxide, triphosphorus pentanitride, dinitrogen monoxide, boron trichloride, disulfur dichloride, sulfur trioxide, nitrogen trihydride, carbon tetrafluoride.