Naming Flowchart [18K GIF]

Flow Chart for Naming Simple Inorganic Compounds

The flowchart is adapted from p. 131-132 of the February 1983 issue of the *Journal of Chemical Education.*

Does the formula begin with H?	
No	Yes

Are there two atoms, both the same?	
Yes	No

It is an acid.

Does the acid contain a polyatomic ion? (More than two elements.)	
Yes	No

It is the diatomic gas hydrogen.

Does it begin with a metal which has more than one oxidation number? Fe, Ni, Cu, Sn, Hg, Pb, Co, Cr, Au	
No	Yes

Name the first element followed by its oxidation number. (Roman numeral)

Does the polyatomic end in *-ate* or *-ite?*	
-ate	-ite

Name the polyatomic ion, replacing -ate with -ic. Add the word acid.

Does the formula contain a polyatomic ion? (More than two elements.)	
No	Yes

Is the polyatomic written first?	
No	Yes

Name the polyatomic ion, replacing -ite with -ous. Add the word acid.

Name the first element, then the polyatomic ion. (If two elements are present, name both, then the polyatomic ion.)

Name the polyatomic first, then name the element second. If there are two polyatomics, name the first, then the second.

Write the prefix *hydro*, then the name of the second element with the *-ic* ending. Add the word *acid*.

Are both elements nonmetals?	
No	Yes

Name the first element, then the second element with *-ide* ending.

Are both elements the same?	
No	Yes

Name the first element using the proper prefix (di, tri, etc.), but never mono. Name the second element with the proper prefix (including mono) and the *-ide* ending.

It is a diatomic element. The compound has the same name as the element.