FLOWCHART FOR NAMING COMPOUNDS & MOLECULES
*use this to help you write, balance and name chemicals

Metal and Nonmetal?

YES

IONIC COMPOUND

BINARY COMPOUND: NaCl

CATION
Na+

ROOT OF ANION
Cl-

sodium
chloride

INvolving polyatomic ions: NaOH

POLYATOMIC ION
OH-

sodium hydroxide

INvolving transition metals: FeS

TRANSITION METAL(Roman Numerals)
Fe2+

ROOT OF ANION -ide
S2-

iron(II)
sulfide

INvolving hydrogen: HCl (g)

HYDROGEN
H+

ROOT OF ANION + ide (gas)
Cl-

hydrogen chloride (g)

NO

MOLECULE

does it begin with an H?

YES

ACID

NO

NON-ACID

MORE THAN 2 ELEMENTS IN MOLECULE?

YES

USUALLY AN OXYACID

NO

does it contain an O?

YES

oxoacid

NO

non-oxyacid

hydro + root + ic acid

HCl

check the ending of the anion

-HTE

H2SO3

-sulfurous acid

-H2SO4

-sulfuric acid

NO

PREFIX + NAME

PREFIX + ROOT -ide

N2O5
dinitrogen pentoxide

-prefix - is never used for the first element

NO

nitrogen monoxide

does it begin with an H?

NO

MолeCULE

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