

NAMING: GENERAL TYPES

I. Metal--Nonmetal:

name of metal + root of nonmetal + ide

II. Variable Valence Metal--Nonmetal:

name of metal + (charge in Roman numerals) + root of nonmetal + ide

III. Polyatomic ions:

can replace the metal or

the root of nonmetal + ide in I. or II. above

IV. Nonmetal--Nonmetal:

prefix of 1st element if >1 +

name of 1st element +

prefix of 2nd element +

root of 2nd element + ide

V. Oxyanions:

are a special type of polyatomic ions.

Memorize the -ate form

remove 1 O to get the --ite form

remove another O to get the hypo--ite form

add 1 O to get the per----ate form

VI. Acids (have H⁺ with a nonmetal or polyatomic):

H⁺ with a nonmetal:

hydro+root of nonmetal + ic Acid

H⁺ with the --ate form of the polyatomic:

root of nonmetal + ic Acid

H⁺ with the --ite form of the polyatomic:

root of nonmetal + ous Acid

H⁺ with the hypo--ite form of the polyatomic:

hypo + root of nonmetal + ous Acid

H⁺ with the per--ate form of the polyatomic:

per + root of nonmetal + ic Acid

| PREFIXES | | IONS TO MEMORIZE | |
|----------|----|---|-----------|
| MONO | 1 | Zn ²⁺ | Zinc |
| DI | 2 | Ag ⁺ | Silver |
| TRI | 3 | NH ₄ ⁺ | Ammonium |
| TETRA | 4 | CO ₃ ²⁻ | Carbonate |
| PENTA | 5 | NO ₃ ⁻ | Nitrate |
| HEXA | 6 | PO ₄ ³⁻ | Phosphate |
| HEPTA | 7 | SO ₄ ²⁻ | Sulfate |
| OCTA | 8 | ClO ₃ ⁻ | Chlorate |
| NONA | 9 | OH ⁻ | Hydroxide |
| DECA | 10 | C ₂ H ₃ O ₂ ⁻ | Acetate |