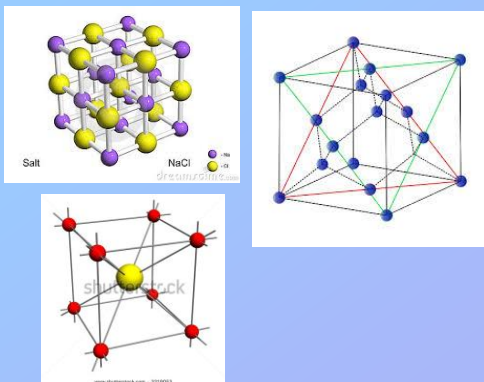


Ionic Compounds

- Generally involves metal + nonmetal
- Units are called “formula units”
(*not* called molecules)
- Structure is called a “crystal lattice”
- Ex: NaCl MgBr₂ Ca(NO₃)₂

Polyatomic ion

A group of atoms with an overall charge



Ionic Compounds: Formulas

- Cation 1st (positive, metal), Anion 2nd (negative, nonmetal)
(One exception: ammonia, NH₃) — memorize
- Atoms tend to gain or lose a certain number of e-
Oxidation number:
Charge an atom gets when e- are lost or gained
Can be predicted based on position on per. table
- Ions combine in a ratio so the total number of positives equals the total number of negatives

Ex: Ca ⁺²	Cl ⁻¹	CaCl ₂
Ca ⁺²	O ⁻²	CaO
Al ⁺³	O ⁻²	Al ₂ O ₃
Na ⁺¹	NO ₃ ⁻¹	NaNO ₃
Mg ⁺²	C ₂ H ₃ O ₂ ⁻¹	Mg(C ₂ H ₃ O ₂) ₂
Al ⁺³	SO ₄ ⁻²	Al ₂ (SO ₄) ₃

Ionic Compounds: Naming

Binary Compounds (only two elements)

1st name the cation

2nd name the anion, change ending to “ide”

Ex: CaO	calcium oxide
Be ₃ N ₂	beryllium nitride
SrF ₂	strontium fluoride

