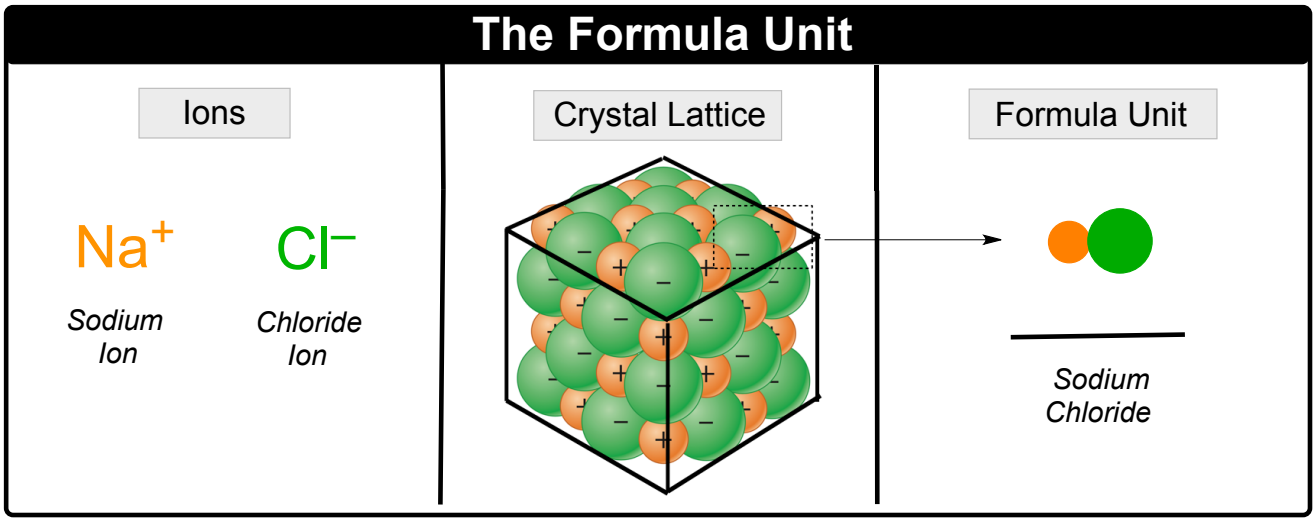
CONCEPT: WRITING FORMULA UNITS OF IONIC COMPOUNDS

- **Formula Unit:** represents the _____ (simplest) ratio of ions in an ionic solid that combine to give a neutral charge.
  - □ In reality, an ionic solid doesn't exist as an ionic _____ but instead as a *crystal lattice*.
  - □ **Crystal Lattice:** A ____ arrangement of several cations and anions together that form a stable pattern.



Rules for Writing Ionic Compounds

STEP 1: Write the ions involved in the compound from the provided name.

STEP 2: Use these ions to write the formula of the ionic compound.

□ When numbers in charges are the same they _____ to combine the elements.

Aluminum Nitride: Al^{3+} N^{3-} ⟶ _____

□ When numbers in charges are different they _____ to combine the elements.

Barium Phosphate: Ba^{2+} PO_4^{3-} ⟶ _____

EXAMPLE: Provide the formula unit for the compound formed by the following ions: Mg^{2+} and SO_4^{2-}

PRACTICE: Provide the molecular formula for the following compound: Sodium dichromate