

### Completion

Complete each sentence or statement.

- An electron that occupies the outermost energy level of an atom is known as a(n) Valence electron.
- An atom or group of atoms that has an electrical charge because it has either lost or gained one or more electrons is a(n) ion.
- An ion that has a negative charge is a(n) anion.
- The ion formed by an atom of a metal is a(n) cation.
- The ion formed by an atom of a nonmetal element is a(n) anion.
- A compound resulting from the formation of an ionic bond between a cation and an anion is a(n) salt.
- A repetitive geometric arrangement of ions, atoms, or molecules that forms a crystal structure is called the crystal lattice.
- The name of the ion  $O^{2-}$  is the oxide ion.
- The name of the ion  $Cu^+$  is the copper(I) ion.
- The chemical formula for the compound strontium sulfide, which contains  $Sr^{2+}$  and  $S^{2-}$  ions, is  $SrS$ .

Word Bank:

Valence ion	Crystal lattice Salt	Cation Oxide	Anion Anion	Copper(I) SrS
----------------	-------------------------	-----------------	----------------	------------------

Write the formula for the following ionic compounds:

- Sodium chloride:  $NaCl$
- Calcium oxide:  $CaO$
- Iron (II) fluoride:  $FeF_2$
- Copper (I) oxide:  $Cu_2O$
- Aluminum sulfate:  $Al_2(SO_4)_3$
- Silver chloride:  $AgCl$
- Potassium carbonate:  $K_2CO_3$
- Tin (IV) fluoride:  $SnF_4$
- Chromium (III) oxide:  $Cr_2O_3$
- Sodium sulfide:  $Na_2S$

Write the names for the following ionic compounds:

- $NaNO_3$  Sodium Nitrate
- $Li_2O$  lithium oxide
- $CuCO_3$  Copper(II) carbonate
- $Fe_2O_3$  Iron(III) oxide
- $Ca_3(PO_4)_2$  calcium phosphate
- $SnO$  tin(II) oxide
- $MgCO_3$  magnesium carbonate
- $MnCO_3$  manganese(II) carbonate
- $Ag_2O$  silver oxide
- $TiCl_3$  titanium(III) chloride