

Writing Lewis Structures for Molecules

- 1. Calculate the total number of valence electrons. Adjust for ion charge, if necessary.**
{For cations, subtract the charge to get the total. For anions, add the charge to get the total.}
- 2. Write a skeleton structure of the molecule or ion. Indicate bonds by dashes.**
Choose a central atom, and draw bonds from the central atom to the other atoms. The central atom is typically the least electronegative atom (except for H).
Note: In oxoacids, O atoms are bonded to the central atom and H atoms are bonded to the O atoms, NOT necessarily the central atom.
- 3. Distribute electrons as lone pairs to the atoms surrounding the central atom(s). Use the octet rule.**
- 4. Distribute any remaining electrons as lone pairs to the central atom(s).**
- 5. If all octets cannot be satisfied with the electrons available, it will be necessary to use multiple bonds.** Pull a lone pair of electrons from an adjacent atom and place an additional bond between that atom and the central atom.