

6.15: Writing Lewis Structures for Molecules

Because Lewis diagrams are widely used to describe the structures of molecules, it is important that you be able to construct them. The first step in this process is to draw a **skeleton structure** to show which atoms are linked to which. Next, determine how many valence electrons are available by adding the periodic group numbers for all atoms in the molecule. Finally, allocate the available electrons either as shared pairs or as lone pairs so that each atom has an octet (or in the case of H, a $1s^2$ pair).

Deciding on a Skeleton Structure

Multiple Bonds

An Excess of Bonds

Resonance

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