

CHAPTER 1	Rules for Drawing Lewis Structures	BLM 1.1.4
OVERHEAD		

Drawing Lewis Structures for Simple Molecules and Polyatomic Ions

Step 1 Determine the total number of valence electrons in all of the atoms in the molecule. If the molecule has a charge, add or subtract electrons to account for the charge.

Step 2 Choose the atom with the most unpaired electrons to be the central atom. Draw a skeleton structure for the molecule by placing the other atoms around the central atom.

Step 3 Place lone pairs of electrons to form an octet around each of the atoms *except* the central atom. Hydrogen, of course, can only have two electrons in its outer shell.

Step 4 (a) If all of the valence electrons determined in Step 1 have not been accounted for, add one or more lone pairs around the central atom to complete its octet of electrons.

(b) If all of the valence electrons have been used, but the central atom still does not have an octet of electrons, move one or more of the lone pairs to form double or triple bonds between the central atom and an adjacent atom.