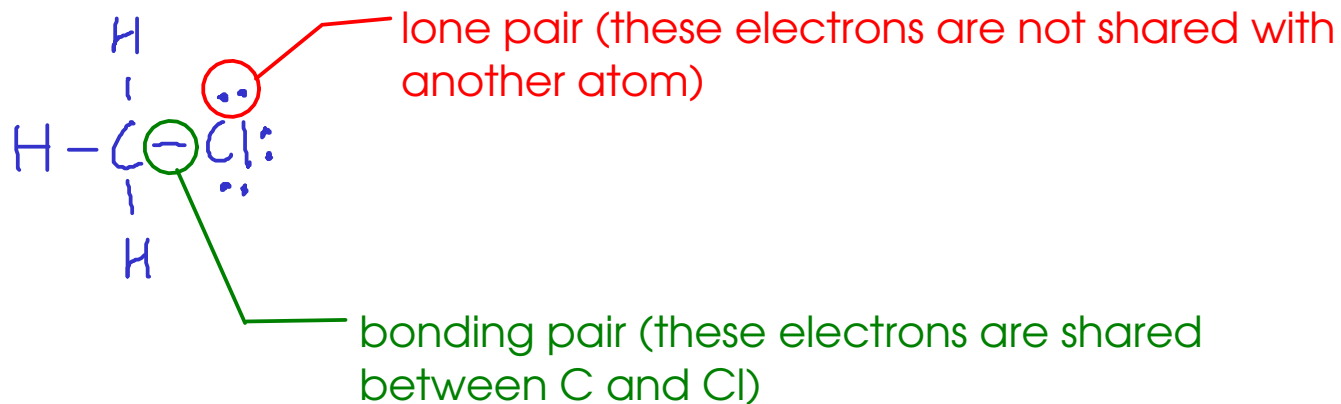


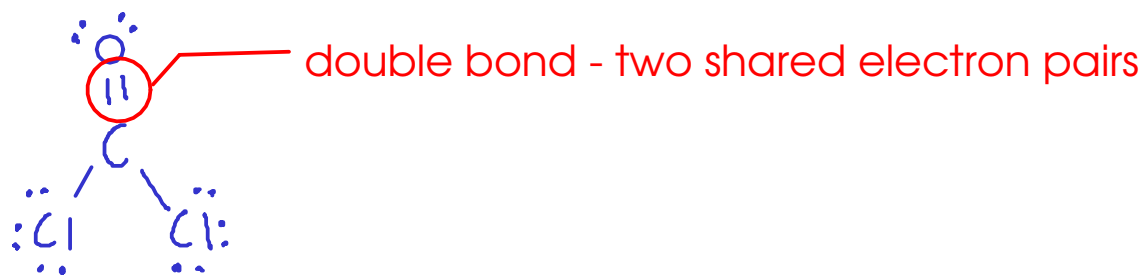
Lewis dot structures for molecules

In the dot structure of a molecule,

- SHARED valence electrons are shown with dashes - one per pair.
- UNSHARED valence electrons ("lone pairs") are represented by dots.

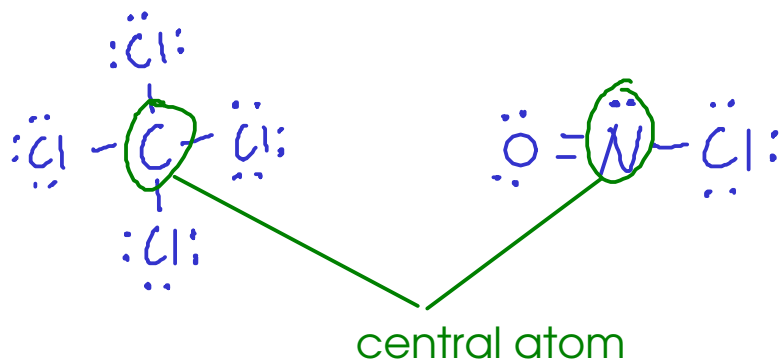


Multiple pairs of shared electrons are represented by multiple dashes:



Atoms generally don't share more than three pairs of electrons with a second atom, though they can share more pairs by sharing with several different atoms.

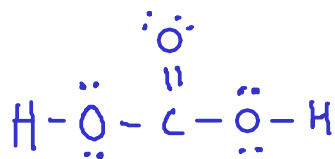
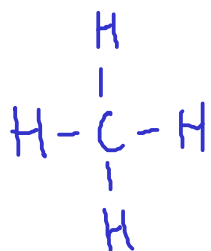
Small molecules generally form around a CENTRAL ATOM.



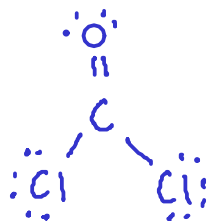
Other atoms in the molecule bond to the central atom.

The central atom is usually the atom in the structure which needs to gain the most electrons for its outer shell.

The "octet rule" is a useful guide to figuring out how many electrons an atom will share in a molecule.



Count the electrons for each atom. Remember, each dash represents a pair!



Atoms usually end up with a share in EIGHT VALENCE ELECTRONS in a Lewis structure. This includes bonding pairs and lone pairs.

Hydrogen is different, since its outer shell can hold a maximum of two electrons.