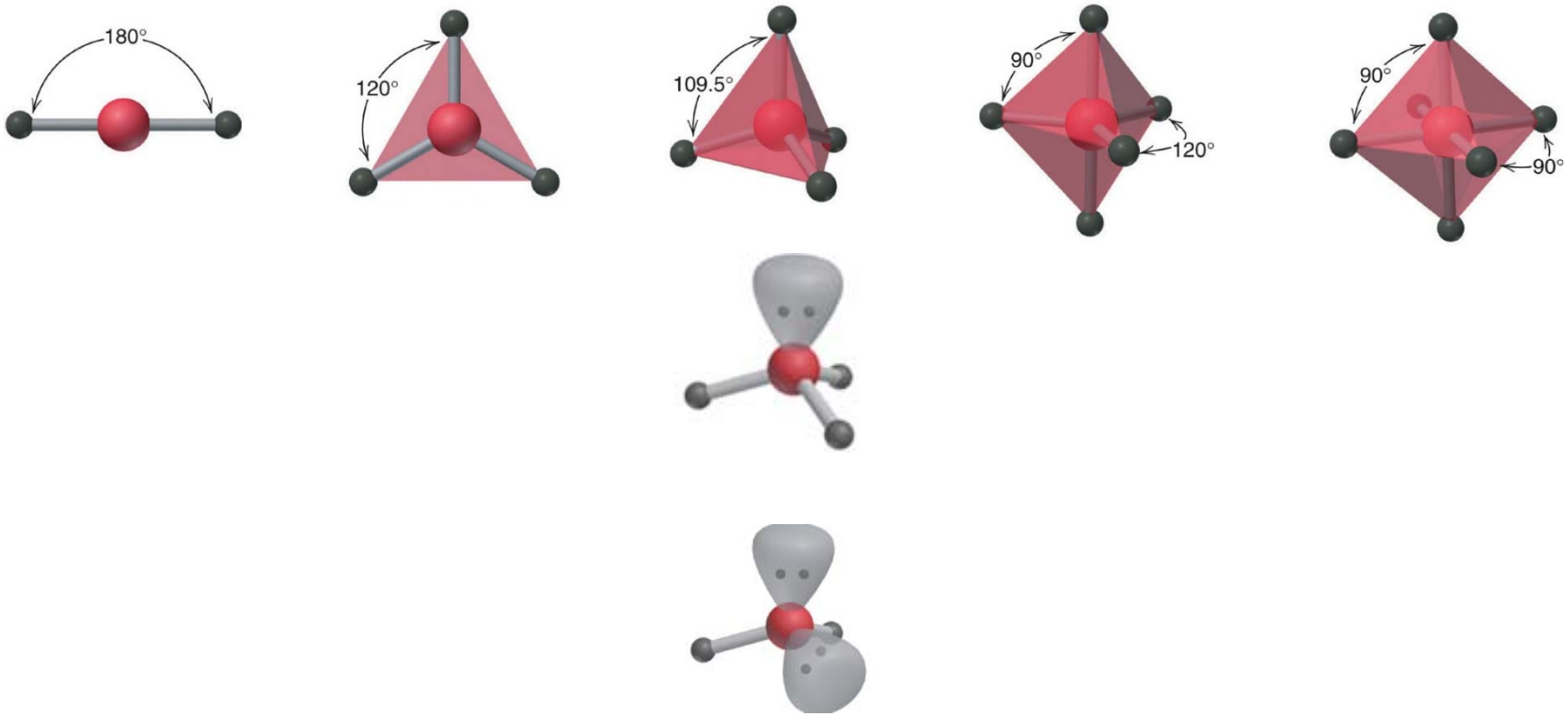
Draw VSEPR structures for molecules and polyatomic ions and name each electron-group and molecular geometry.

<u>The model</u> Fig 9.2 and modified Fig 9.5



Draw VSEPR structures for molecules and polyatomic ions and name each electron-group and molecular geometry.

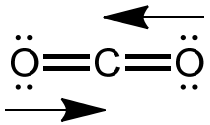
e.g. H_2O, NH_3 *and* CH_4

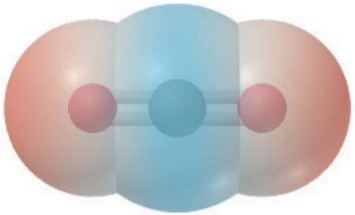
Draw VSEPR structures for molecules and polyatomic ions and name each electron-group and molecular geometry.

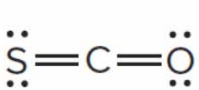
e.g. CH_3CH_2OH, CH_3CHO and HCCH

Assign bond polarity and overall molecular polarity.

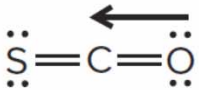
pp. 365 and 367



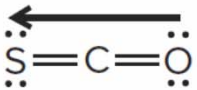




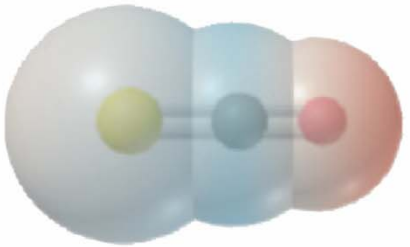
Molecular shape



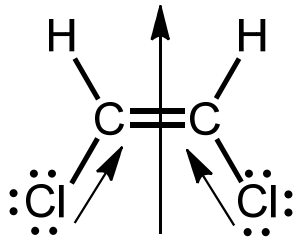
Bond polarity



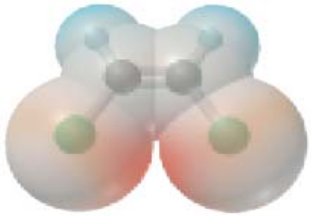
Molecular polarity

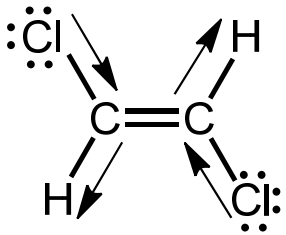


Assign bond polarity and overall molecular polarity.

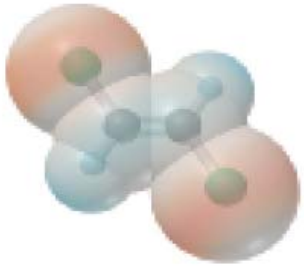


cis

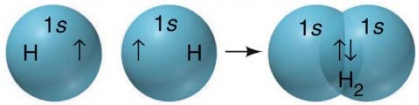


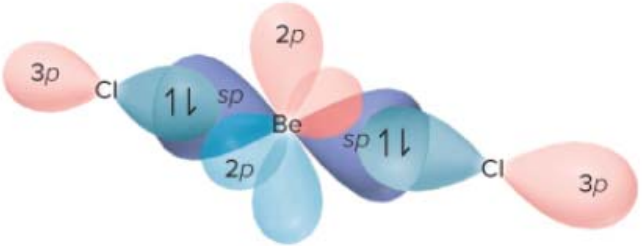


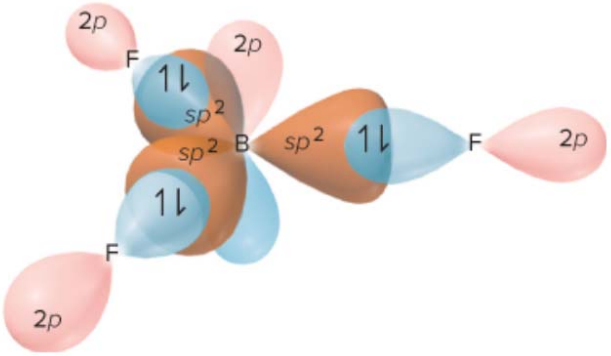
trans

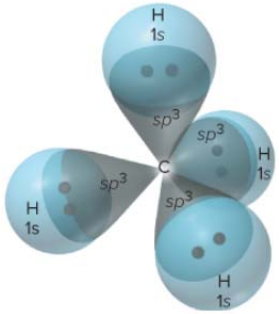


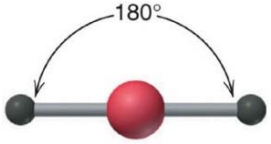
Explain how overlapping atomic orbitals result in covalent bond formation, using valence bond theory.

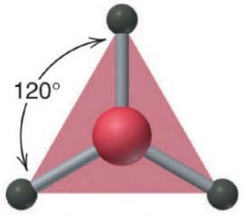


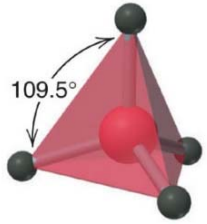






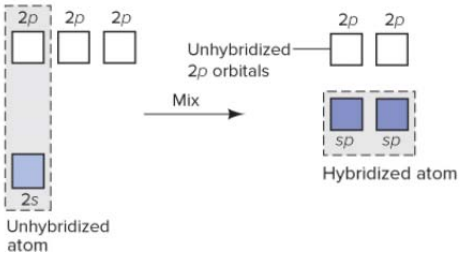


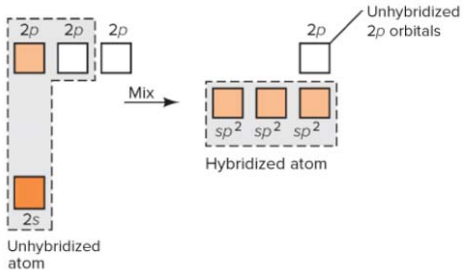


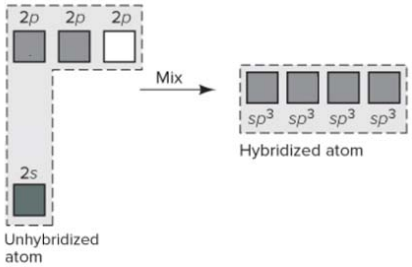


Modifications of Fig 9.2, 10.1 and 10.3 to 10.5

Identify the hybridization of atoms in molecules and polyatomic ions. (s, sp, sp^2, sp^3 only)







Modifications of Fig 10.3 to 10.5