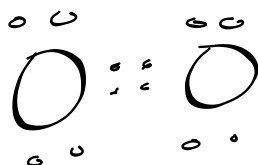
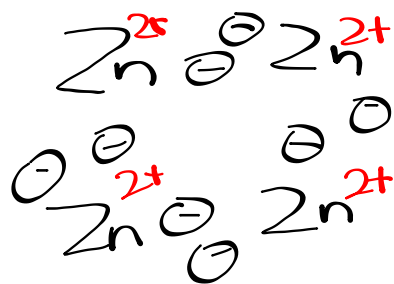
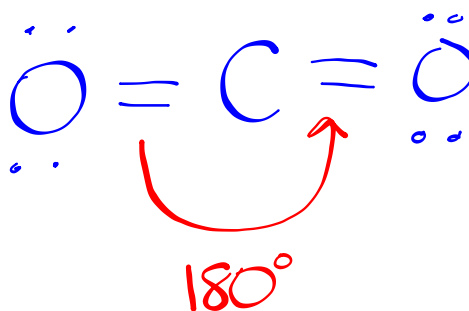
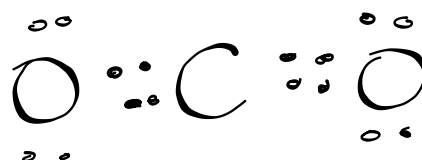
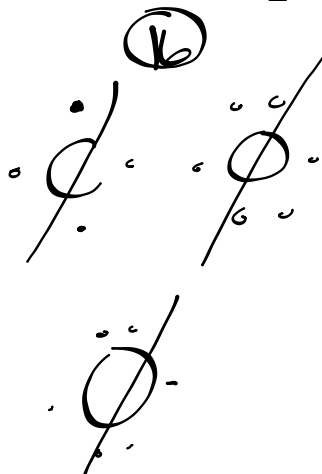
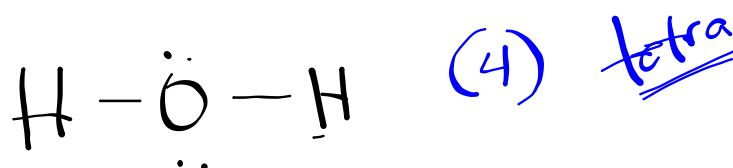


# Quiz



**Ex. CH<sub>2</sub>O****trigonal planar (120°)****When predicting molecular shapes, double and triple bonds are treated as single bonds.****Ex. CO<sub>2</sub>**linear (2)

Tetrahedral (4)	$109.5^\circ$
Trigonal Planar (3)	$120^\circ$
Linear (2)	$180^\circ$

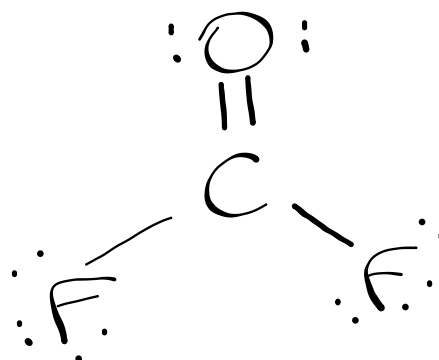
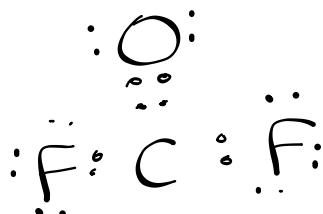
Draw an electron dot structure, three-dimensional diagram, and state the shape for each of the following molecules.

a) CNCl

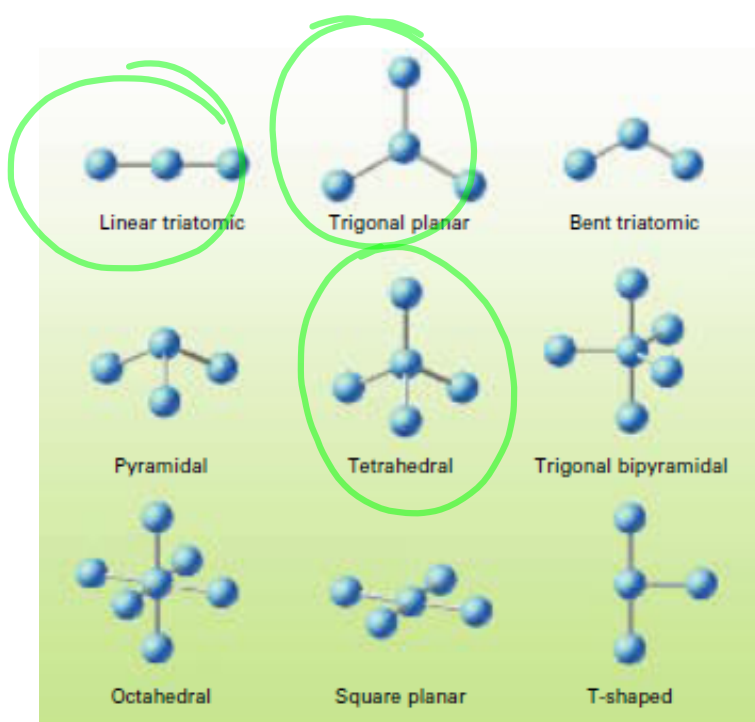
b) PF<sub>3</sub>



c) COF<sub>2</sub>



d) SiF<sub>2</sub>Br<sub>2</sub>



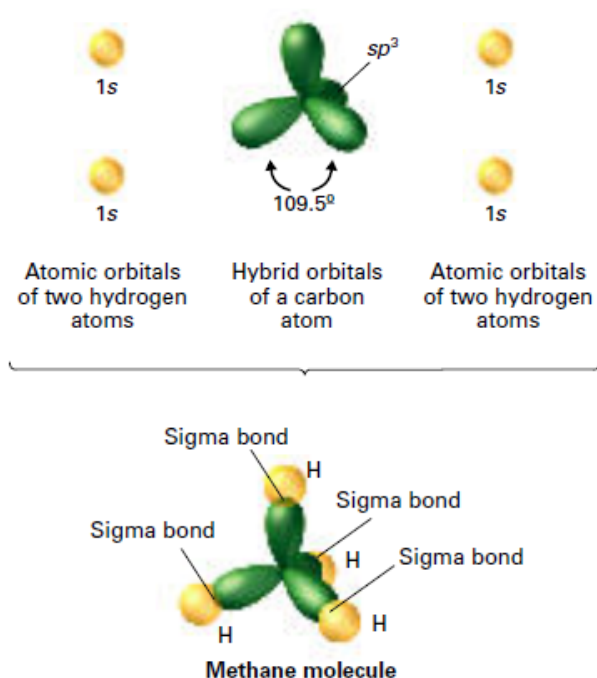
## Hybridization Involving Single Bonds

In hybridization, atomic orbitals mix to form the same total number of equivalent hybrid orbitals.

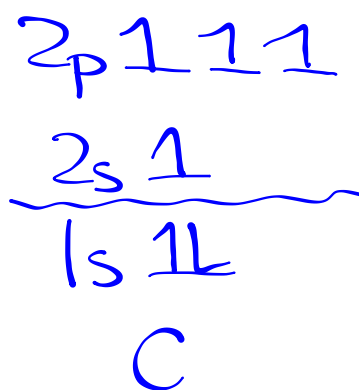
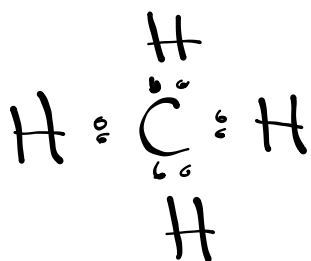
(molecular orbitals)

Ex. CH<sub>4</sub>

The one 2s orbital and three 2p orbitals of a carbon atom mix to form four sp<sup>3</sup> hybrid orbitals.



CH<sub>4</sub>



H

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