Unit 4: Chemical Reactions

Lesson 10: What does it look like?

Guiding Question: Explain how to use electrons to determine the 3D shape of a molecule.

Do Now:

- Draw a structural formula for CO_3^{-2}

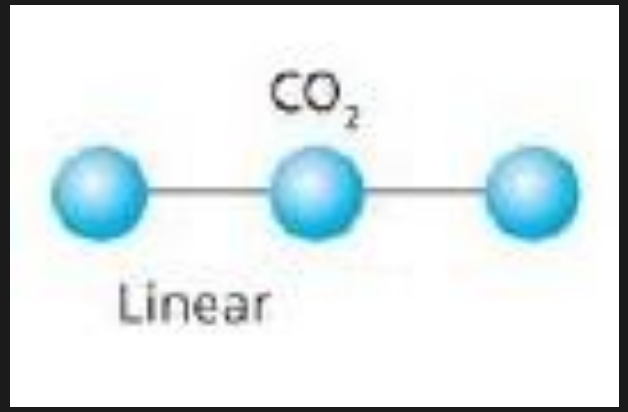
Notes

- Valence Shell Electron Pair Repulsion Theory repulsion or(VSPER Theory for short) states that the electrons involved in bonding, the valence electrons, will repel each other in space.
- This includes bonding and non-bonding (or lone pair) electrons.
- This repulsion causes molecules to form 3D shapes to give as much room as possible between all electrons.

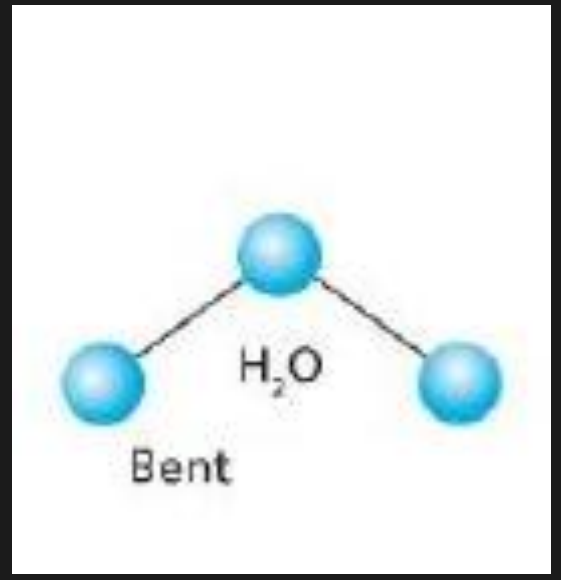
Notes

- The shapes are as follows:

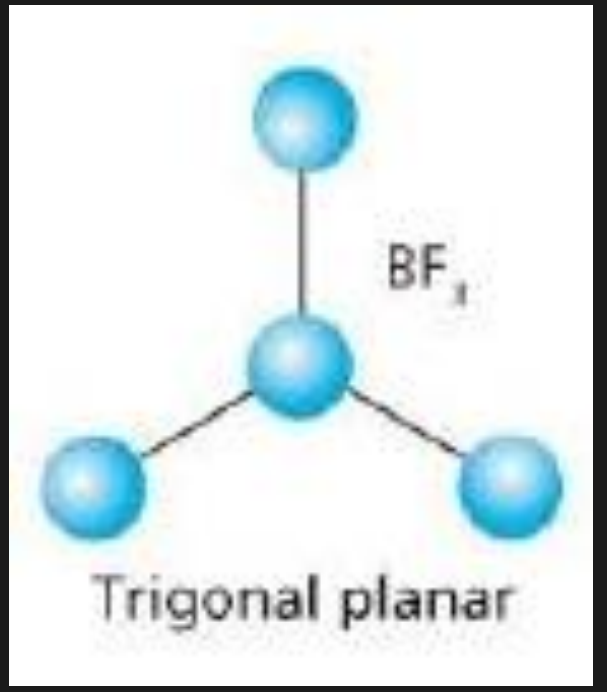
Linear



Bent

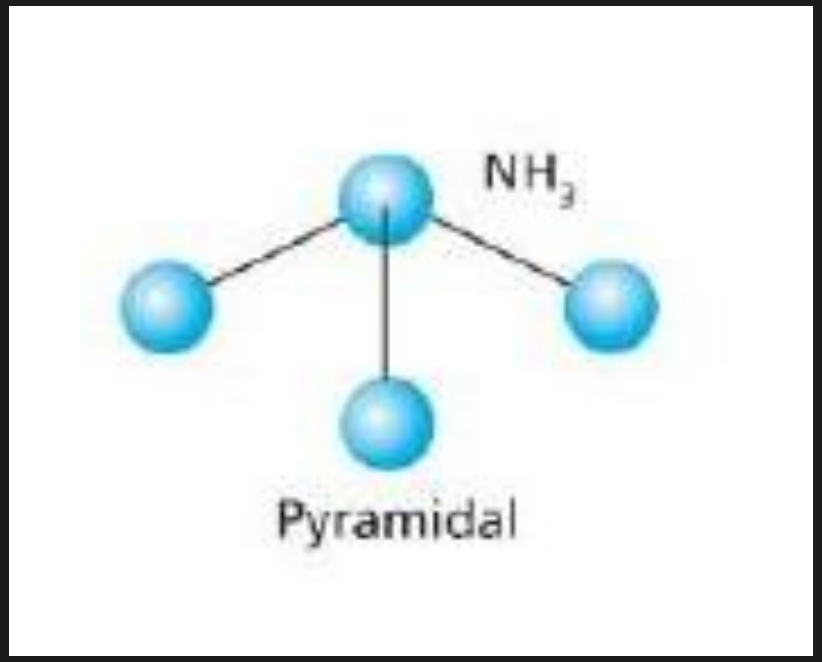


Trigonal Planar

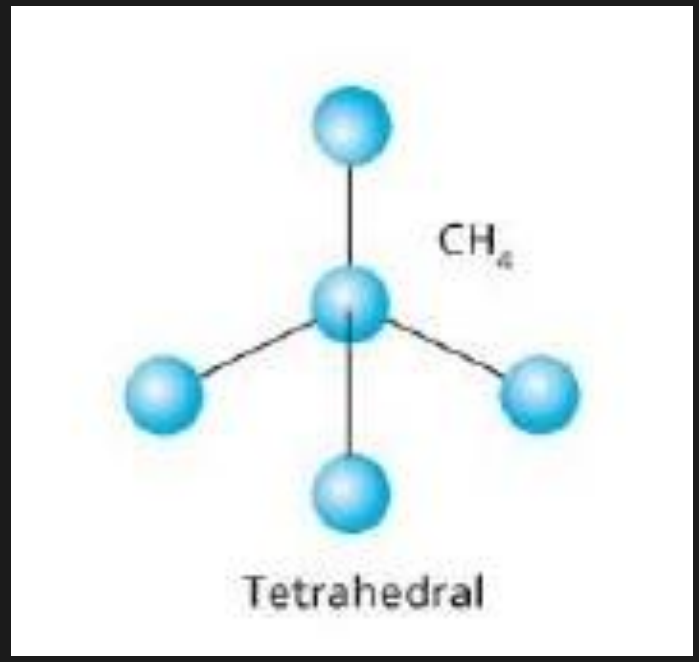


Notes

Pyramidal



Tetrahedral



Closure

- Answer Guiding Question on page 10
- Quiz #3 next block (3/7 & 3/8)
- Achieve 3000: The Car that Runs on Chocolate due Friday, 3/9 at 11:59pm