

Valence Shell Electron Pair Repulsion (VSEPR)

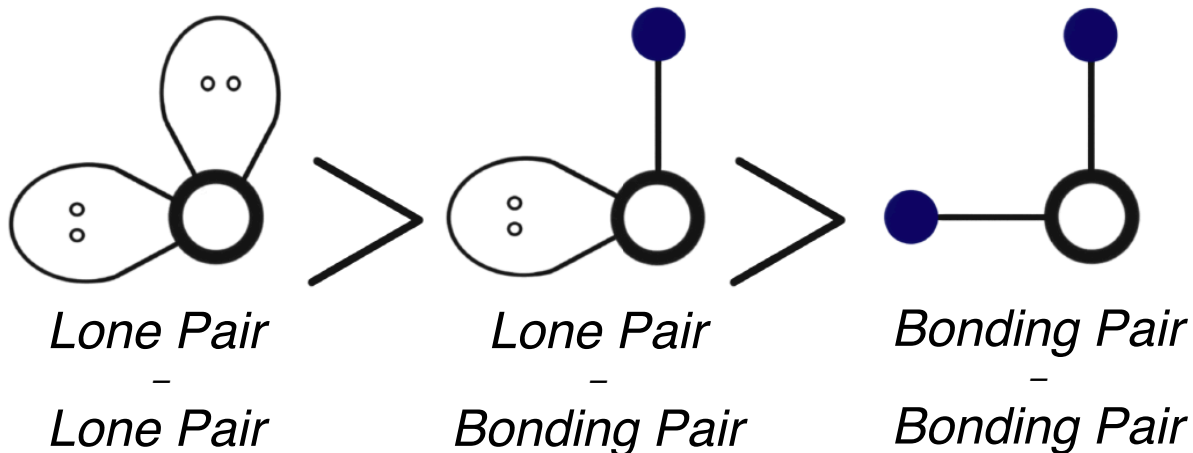
Flash Review

CHEM 371

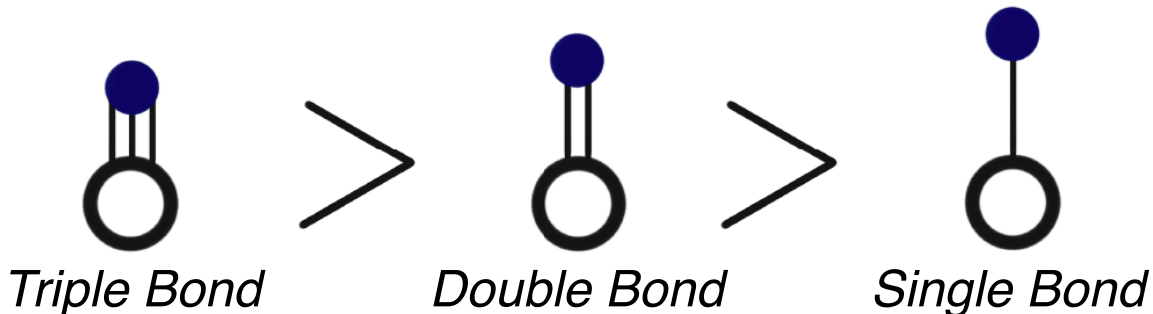
Dr. Christopher B. Durr



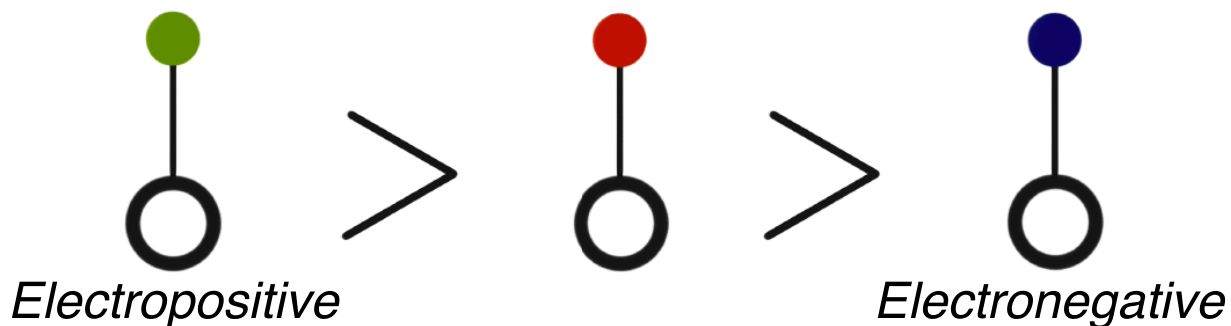
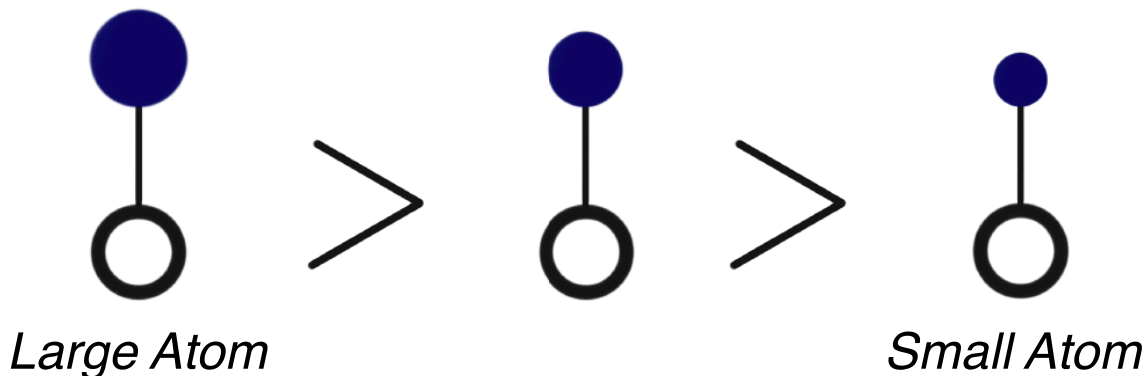
VSEPR Repulsion Basics



More Repulsion



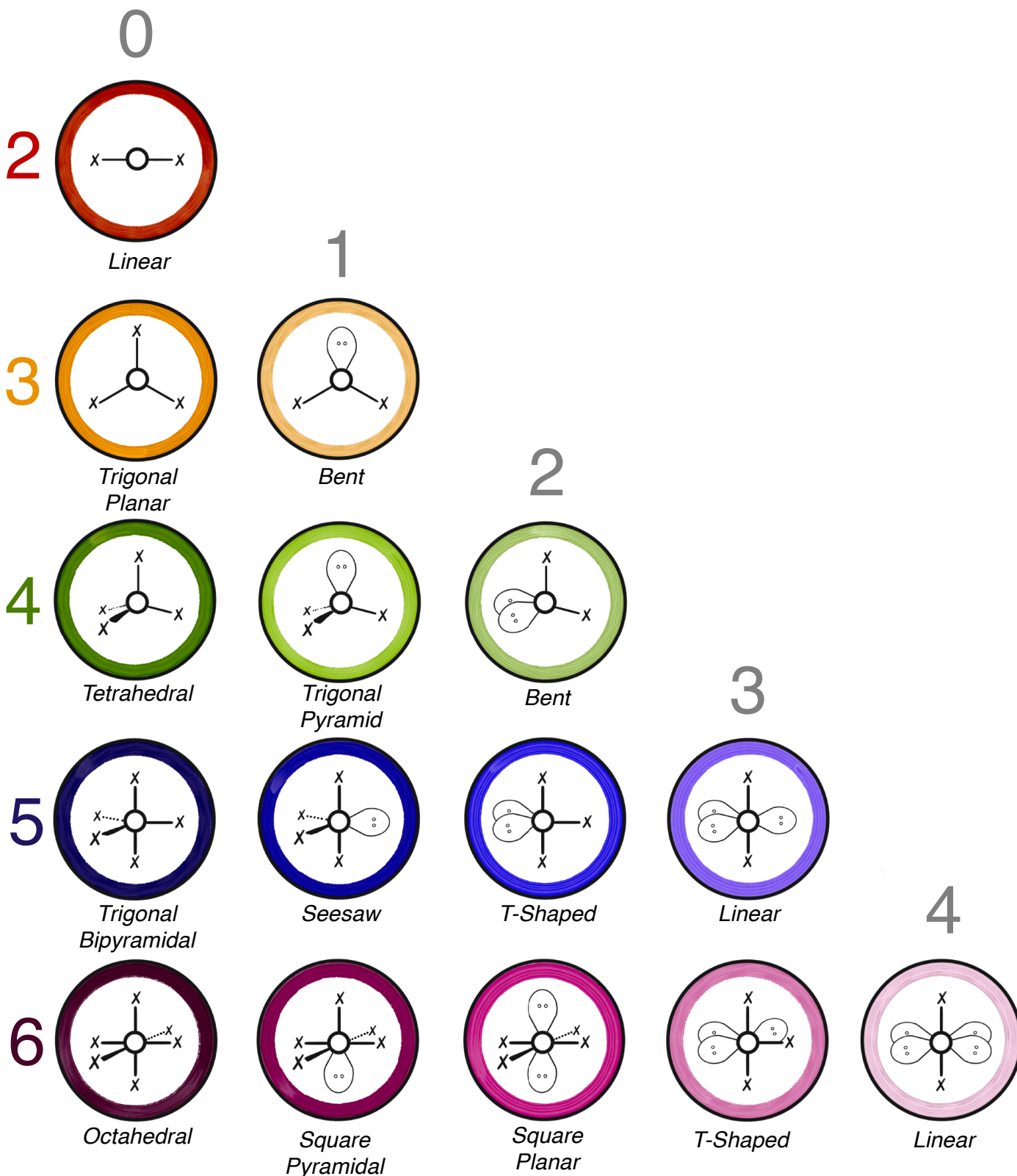
Less Repulsion



VSEPR Predicted Shapes

Number of Lone Pairs

Steric Number



Common VSEPR Mistakes

Number of Lone Pairs

0

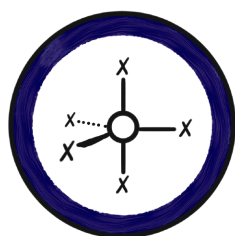
1

2

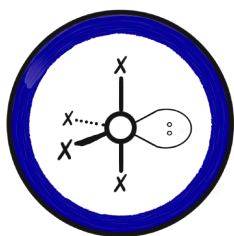
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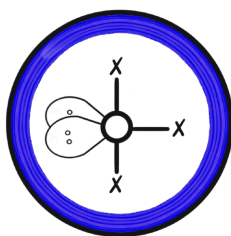
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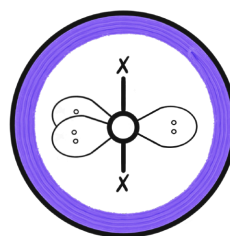
Trigonal Bipyramidal



Seesaw

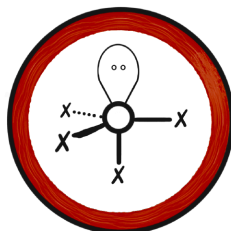


T-Shaped

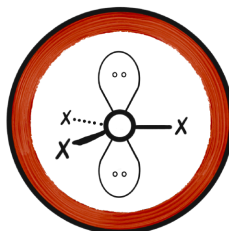


Linear

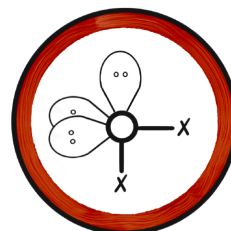
Mistakes



Trigonal Pyramidal



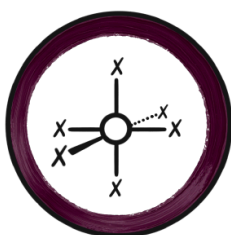
Trigonal Planar



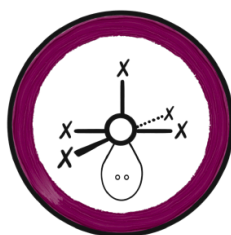
Bent

Steric Number

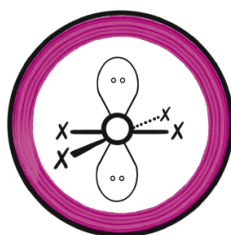
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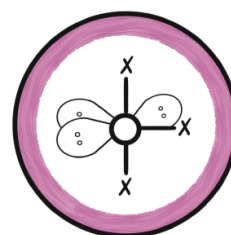
Octahedral



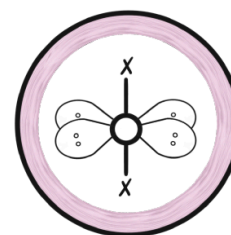
Square Pyramidal



Square Planar

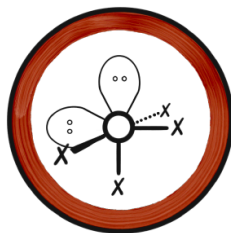


T-Shaped

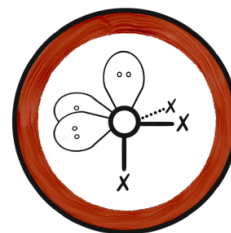


Linear

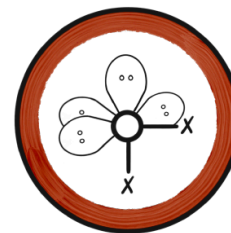
Mistakes



Seesaw

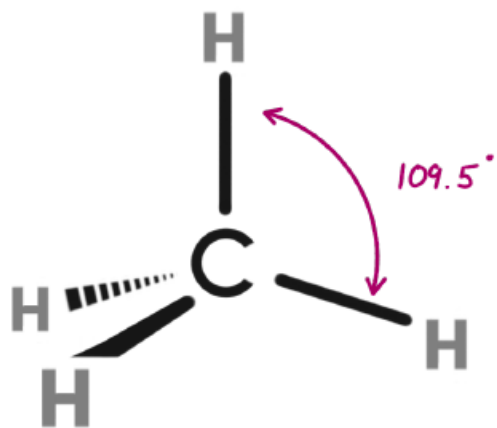


Trigonal Pyramidal

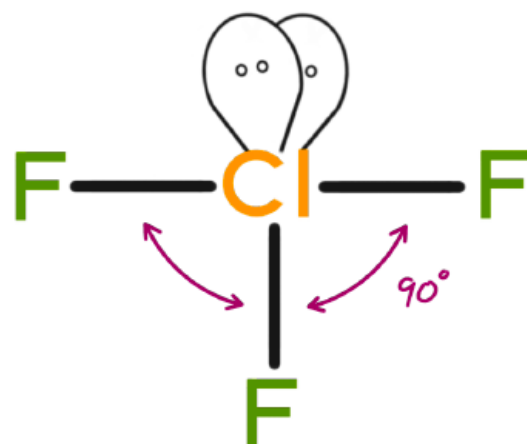


Bent

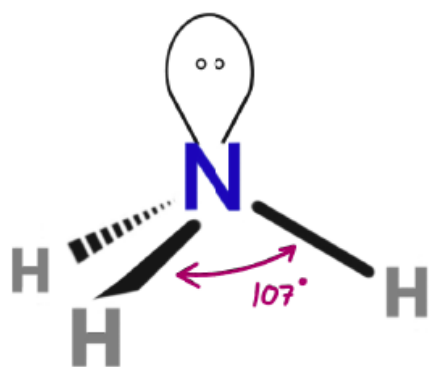
VSEPR Bond Angles



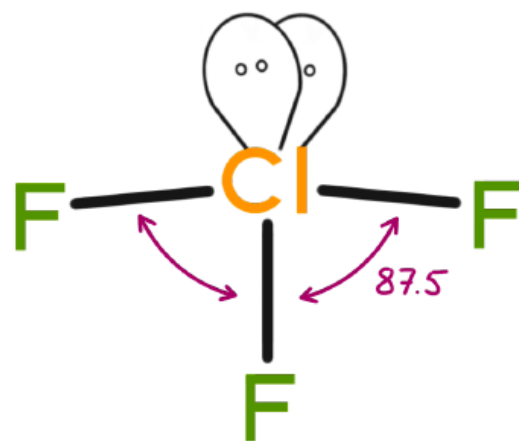
Methane



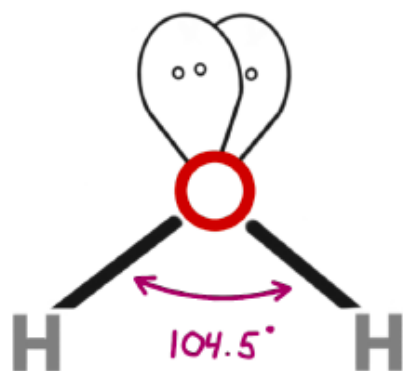
ClF₃ : *Ideal*



Ammonia



ClF₃ : *Reality*



Water