Shapes of Molecules & Bond Angles

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| Bonds on Central Atom | Lone Pairs on Central Atom | 3-D Shape of Molecule | Name of Shape | Bond Angle | Structural Formula |
| 1 | Not Applicable |  | Linear | 180° | Double and triple bonds are linear! |
| 2 | 0 | http://ed.augie.edu/~tmmcconv/chem120/AX2.gif | Linear | 180° | Outside atoms can have any number of lone pairs  (This applies to all atoms below & above also.) |
| 3 | 0 | <http://ed.augie.edu/~tmmcconv/chem120/AX3.gif> | Trigonal Planar | 120° |
| 4 | 0 | http://ed.augie.edu/~tmmcconv/chem120/AX4.gif | Tetrahedral | 109.5° |  |
| 3 | 1 | http://ed.augie.edu/~tmmcconv/chem120/AX3E.gif | Trigonal Pyramidal | 107° |  |
| 2 | 2 | http://ed.augie.edu/~tmmcconv/chem120/AX2E2.gif | Bent | 105° |  |
| 5 | 0 | http://ed.augie.edu/~tmmcconv/chem120/AX5.gif | Trigonal Bipyramidal | 120° and 90° |  |
| 6 | 0 | http://ed.augie.edu/~tmmcconv/chem120/AX6.gif | Octahedral | 90° |  |