**MOLECULAR MODEL ONLINE LAB**

Visit the following websites to determine the shape of molecules based on number of atoms and whether or not there are extra unpaired electrons.

Bond Angles and Shapes of Molecules

<http://www.chem.ufl.edu/~myers/chm2045/shapes.htm>

<http://intro.chem.okstate.edu/1314F00/Lecture/Chapter10/VSEPR.html>

<http://www.chem.wisc.edu/deptfiles/genchem/sstutorial/Text7/Tx73/tx73.html>

Visit the following Phet simulation and click on the “Run” button to make your assigned molecules. Click on the “larger molecule” tab to begin the lab.

Build the following molecules and sketch the shape of the molecule. Make sure you view the “space fill” and the “ball and stick” views under the 3D tab. (Hint, after making each molecule, drag molecule back to basket to reset program):

|  |  |
| --- | --- |
|  | Sketch shape |
| O2 |  |
| H2 |  |
| Cl2 |  |
| N2 |  |
| H2O |  |
| SO2 |  |
| CO2 |  |
| CO |  |
| NH3 |  |
| PH3 |  |
| CH4 |  |
| SiH4  |  |
| HCN |  |