**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Molecular Bonding and VSEPR Theory**

VSEPR Theory and Molecular Geometry. For each molecule shown below, write the most important Lewis structure, determine the correct electronic and molecular geometries, and indicate the correct bond angles.

|  |  |  |
| --- | --- | --- |
| **Molecule**Nitrogen Trifluoride(NF3) | **Lewis Structure** | **Molecular Geometry** |
| **Bond Angle(s)** |
| **Molecule**Water(H2O) | **Lewis Structure** | **Molecular Geometry** |
| **Bond Angle(s)** |
| **Molecule**Beryllium Dichloride(BeCl2) | **Lewis Structure** | **Molecular Geometry** |
| **Bond Angle(s)** |
| **Molecule**Boron Trichloride(BCl3) | **Lewis Structure** | **Molecular Geometry** |
| **Bond Angle(s)** |
| **Molecule**Carbonate Ion(CO32-) | **Lewis Structure** | **Molecular Geometry** |
| **Bond Angle(s)** |

|  |  |  |
| --- | --- | --- |
| **Molecule**Carbon Tetrachloride(CCl4) | **Lewis Structure** | **Molecular Geometry** |
| **Bond Angle(s)** |
| **Molecule**Carbon Dioxide(CO2) | **Lewis Structure** | **Molecular Geometry** |
| **Bond Angle(s)** |
| **Molecule**Nitrite Ion(NO2-1) | **Lewis Structure** |  |
| **Molecular Geometry** |
| **Bond Angle(s)** |