**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)** |