|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Write the Formula** | **Draw the Structure** | **Name the Shape** | **Determine Polarity**  **Polar/Nonpolar** |
| **Hydrogen** | H2 |  |  |  |
| **Water** |  |  |  |  |
| **Methane**  **(Carbon Tetrahydride)** |  |  |  |  |
| **Oxygen** |  |  |  |  |
| **Ammonia**  **(Nitrogen Trihydride)** |  |  |  |  |
| **Dichloromethane** | CH2Cl2 |  |  |  |
| **Nitrogen** |  |  |  |  |
| **Methanol** | CH3OH |  |  |  |
| **Carbon Tetrachloride** |  |  |  |  |
| **Carbon Dioxide** |  |  |  |  |
| **Hydrogen Fluoride** |  |  |  |  |
| **Hydrogen Sulfide** |  |  |  |  |
| **Ethyne** | C2H**2** |  |  |  |

**Molecular Shapes**

**x= Occupied**

**E= Empty**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Bonds** | **0 lone pair** | **1 lone pair** | **2 lone pairs** |
| 2 | [AX2E0-2D.png](http://en.wikipedia.org/wiki/File:AX2E0-2D.png)  [Linear](http://en.wikipedia.org/wiki/Linear_(chemistry)) |  |  |
| 3 | [AX3E0-side-2D.png](http://en.wikipedia.org/wiki/File:AX3E0-side-2D.png)  [Trigonal planar](http://en.wikipedia.org/wiki/Trigonal_planar) | [AX2E1-2D.png](http://en.wikipedia.org/wiki/File:AX2E1-2D.png)  [Bent](http://en.wikipedia.org/wiki/Bent_(chemistry)) |  |
| 4 | [AX4E0-2D.png](http://en.wikipedia.org/wiki/File:AX4E0-2D.png)  [Tetrahedral](http://en.wikipedia.org/wiki/Tetrahedral_molecular_geometry) | [AX3E1-2D.png](http://en.wikipedia.org/wiki/File:AX3E1-2D.png)  [Trigonal pyramid](http://en.wikipedia.org/wiki/Trigonal_pyramid) | [AX2E2-2D.png](http://en.wikipedia.org/wiki/File:AX2E2-2D.png)  [Bent](http://en.wikipedia.org/wiki/Bent_(chemistry)) |