**Shapes of molecules**

**QUESTION: For each of the molecules shown in the table**

**i) name the shape of each molecule**

**ii) state the bond angles**

|  |  |  |
| --- | --- | --- |
| **BCl3** | **COBr2** |  |
| **F2CO**  | **AsF3** | **shape around C and O atoms?** |
| **CCl3F** | **N2O** | **NOCl** |
| **HOCl** | **NH3** | **N2H4** |
| **CH4** | **AsH3** | **NF3** |
| **BF3** | **PF3** | **CCl4** |
| **PH3** | **CO2** | **H2CO (or CH2O)** |
| **H2O** | **CH2Br2 or CH2Cl2** | **CS2** |
| **O2** | **CH3Br or CH3Cl** | **SO2** |
| **XO2****(where X has 4 valence electrons)** | **YO2****(where Y has 6 valence electrons)** | **NCl3** |
| **PBr3 or PCl3** | **H2S** | **COCl2** |
| **OCl2 aka Cl2O** | **SiCl4** | **HCN** |
| **SF2** | **F2O or OF2** | **N2** |

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