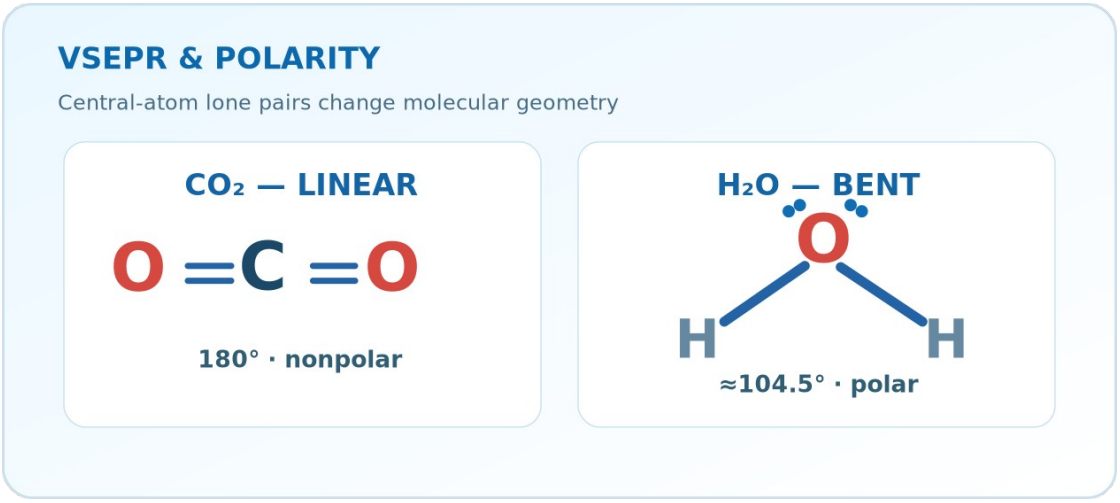
VSEPR — Shapes, Angles & Polarity

STUDENT WORKSHEET • NAME: _____ DATE: _____



Instructions: Show electron counts and charges when requested. Draw structures clearly and label lone pairs.

1. **State the molecular geometry, ideal bond angle and polarity of CO_2.**

2. **State the molecular geometry, ideal bond angle and polarity of BF_3.**

3. **State the molecular geometry, ideal bond angle and polarity of CH_4.**

4. **Give the central-atom domain count, lone pairs, shape and polarity of NH_3.**

5. **Give the central-atom domain count, lone pairs, shape and polarity of H_2O.**

6. **Explain the molecular geometry and polarity of SF_4.**

7. **Give the molecular geometry and polarity of ClF_3.**

8. **What are the molecular geometry and polarity of XeF_4? Explain.**