# Lewis Structures — Practice Worksheet

Name: _____ Date: _____

Instructions: Show your reasoning, units, electron counts, or diagrams as needed. Use a separate sheet for additional work. For numeric results, use appropriate significant figures.

**1. Draw a complete Lewis structure for $H_2O$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**2. Draw a complete Lewis structure for $NH_3$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**3. Draw a complete Lewis structure for $CH_4$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**4. Draw a complete Lewis structure for $CO_2$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**5. Draw a complete Lewis structure for HCN. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

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**6. Draw a complete Lewis structure for $N_2$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**7. Draw a complete Lewis structure for $O_2$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**8. Draw a complete Lewis structure for $BF_3$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**9. Draw a complete Lewis structure for $NH_4^+$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**10. Draw a complete Lewis structure for $NO_3^-$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**11. Draw a complete Lewis structure for $CO_3^{2-}$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**

**12. Draw a complete Lewis structure for $PCl_3$. Show all lone pairs; label any nonzero formal charges and resonance contributors, if appropriate.**