

Revised August 2011



HONORS WORKSHEET 9d: ANSWERS

	Draw Structure	Name Shape
Acetate ion	$ \begin{array}{c} \text{H} \quad \ddot{\text{O}}: \\ \quad \\ \text{H} - \text{C} - \text{C} - \ddot{\text{O}}: \\ \\ \text{H} \end{array} $	NO shape required
Acetylene	$\text{H} - \text{C} \equiv \text{C} - \text{H}$	NO shape required
Allene	$ \begin{array}{c} \text{H} \quad \quad \text{H} \\ \quad \quad \\ \text{C} = \text{C} = \text{C} \\ \quad \quad \\ \text{H} \quad \quad \text{H} \end{array} $	NO shape required
Ammonia	$ \begin{array}{c} \text{H} - \ddot{\text{N}} - \text{H} \\ \\ \text{H} \end{array} $	Trigonal Pyramid
Carbon dioxide	$\ddot{\text{O}} = \text{C} = \ddot{\text{O}}:$	Linear
Dihydrogen phosphate ion	$ \begin{array}{c} \quad \quad \quad -1 \\ \quad \quad \quad \ddot{\text{O}}: \\ \quad \quad \quad \\ \quad \quad \quad +1 \\ \text{H} - \ddot{\text{O}} - \text{P} - \ddot{\text{O}} - \text{H} \\ \quad \quad \quad \\ \quad \quad \quad -1 \\ \quad \quad \quad \ddot{\text{O}}: \end{array} $	NO shape required



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Ethanol	$ \begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ \text{H} - \text{C} - \text{C} - \ddot{\text{O}} - \text{H} \\ \quad \\ \text{H} \quad \text{H} \end{array} $	NO shape required
Ethylene	$ \begin{array}{c} \text{H} \\ \\ \text{H} - \text{C} = \text{C} - \text{H} \\ \\ \text{H} \end{array} $	NO shape required
Ethyl ether	$ \begin{array}{c} \text{H} \quad \text{H} \quad \quad \text{H} \quad \text{H} \\ \quad \quad \quad \quad \\ \text{H} - \text{C} - \text{C} - \ddot{\text{O}} - \text{C} - \text{C} - \text{H} \\ \quad \quad \quad \quad \\ \text{H} \quad \text{H} \quad \quad \text{H} \quad \text{H} \end{array} $	NO shape required
Hydrogen fluoride	$ \text{H} - \ddot{\text{F}}: $	Linear
Hydrogen peroxide	$ \begin{array}{c} \text{H} - \ddot{\text{O}}: \\ \\ :\ddot{\text{O}} - \text{H} \end{array} $	NO shape required



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Methylamine	$ \begin{array}{c} \text{H} \\ \\ \text{H} - \text{C} - \overset{\cdot\cdot}{\text{N}} - \text{H} \\ \quad \\ \text{H} \quad \text{H} \end{array} $	NO shape required
Molecular nitrogen	$:\text{N} \equiv \text{N}:$	Linear
Oxygen difluoride	$ \begin{array}{c} \overset{\cdot\cdot}{\text{F}} - \overset{\cdot\cdot}{\text{O}} \\ \\ \overset{\cdot\cdot}{\text{F}} \end{array} $	Bent or V-Shaped
Phosphine	$ \begin{array}{c} \text{H} \\ \\ \text{H} - \overset{\cdot\cdot}{\text{P}} - \text{H} \end{array} $	Trigonal Pyramid
Water	$ \begin{array}{c} \text{H} - \overset{\cdot\cdot}{\text{O}} \\ \\ \text{H} \end{array} $	Bent or V-Shaped