**Name: Period: Seat#:**

**Worksheet #11**

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| --- | --- |
| 1. What is the main idea behind VSEPR theory?
 | 1. Describe what hybridization is. Give an example.
 |

 **For each of the following compounds, draw a Lewis Structure, determine the AXE formula, steric number, electronic geometry, molecular geometry, bond angles, and hybridizations.**

|  |  |
| --- | --- |
| 1. Carbon tetrachloride Lewis Structure

 Formula: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. BH3 Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |
| 1. Silicon disulfide Lewis Structure

Formula: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. C2H2 Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |
| 1. Phosphorus trifluoride Lewis Structure

Formula: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. SF6 Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |

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| 1. Dihydrogen monoxide Lewis Structure

Formula: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. PCl5 Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |
| 1. SeF2  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. CO32-  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |
| 1. Xenon tetraoxide Lewis Structure

Formula: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. ClF5  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |
| 1. Br3-  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. SO32-  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |

|  |  |
| --- | --- |
| 1. CO2  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. KrF4  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |
| 1. SF4  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. O3  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |
| 1. CHCl3  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. SO2  Lewis Structure

Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |
| 1. Iodine pentafluoride Lewis Structure

Formula: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: | 1. Find a molecule not on this WS and fill out the info:

Formula: Name: AXE:Steric #:Electron Geo:Molecular Geo:Bond Angles:Hybridization: |