

Name: \_\_\_\_\_

Block: \_\_\_\_\_

Date: \_\_\_\_\_

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Chemistry 11H

**VSEPR Worksheet**

Assignment

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1. Draw the Lewis Diagram, write the VSEPR notation of the central atom in each of the following, and predict the molecular geometry.

a. HOCl

b. SiF<sub>4</sub>

c. NCl<sub>3</sub>

d. CS<sub>2</sub>

e. SCN<sup>-</sup>

f. NH<sub>4</sub><sup>+</sup>

g.  $\text{H}_2\text{CO}$

h.  $\text{SF}_2$

i.  $\text{NI}_3$

j.  $\text{XeF}_4$

k.  $\text{BrO}_3^-$

2. Explain why the molecule  $\text{BF}_3$  is trigonal planar, whereas a molecule with a similar formula,  $\text{ClF}_3$  is T-shaped.