

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

## Lewis Structures

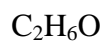
### 1. Covalent bonding opportunities

For each atom or ion below, determine the number of its valence electrons, portion them as evenly as possible to the four valence orbitals on a dot diagram, identify the number of unpaired electrons, and predict the number of covalent bonds the atom or ion can make.

Atom or ion	Number of Valence Electrons	Dot diagram	Unpaired electrons	Bonds possible
Si	4	$\begin{array}{c} \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \end{array} \text{Si} \begin{array}{c} \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \end{array}$	4	4
S		S		
H		H		
B		B		
C		C		
O		O		
O <sup>-</sup>		O		
Cl		Cl		
N		N		
N <sup>+</sup>		N		
P		P		

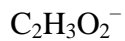
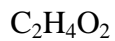
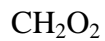
**2. Molecules with Single Bonds**

Create Lewis structures for each formula. Some formulas may describe several valid structures.



**3. Molecules with Multiple Bonds**

Create Lewis structures for each formula. Some formulas may describe several valid structures. (Don't bond oxygen atoms to each other.)



## LEWIS STRUCTURES WORKSHEET



### 4. More

Create Lewis structures for each formula. You figure out how they are bonded.

