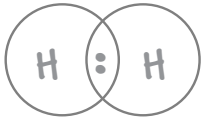
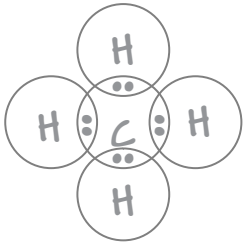
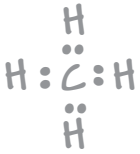
Analysis Activity

MOLECULAR GEOMETRY

Directions:

1. Log into Collisions and navigate to the Covalent Bonding Game.
2. Play the Tutorial levels, if you haven't done so already.
3. Exit the levels and enter the Covalent Bonding Sandbox.
4. Build each molecule listed in the table below and record the requested information.

Name: _____

	H_2	CH_4	O_2	CO_2	FBr	CH_3Cl
Draw the molecule that you built in the Sandbox.						
Draw the Lewis Structure.	H:H					
Central atom	N/A	C				
# of electron domains (central atom)	N/A	4				
# of lone pairs (central atom)	N/A	0				
Molecular shape	Linear	Tetrahedral				
Bond angle	180°	109.6°				

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	NH_3	PCl_3	H_2O	SCl_2	$COCl_2$	SO_2
Draw the molecule that you built in the Sandbox.						
Draw the Lewis Structure.						
Central atom						
# of electron domains (central atom)						
# of lone pairs (central atom)						
Molecular shape						
Bond angle						

Analysis Question: Describe how the number of electron domains and the number of lone pairs affect bond angles in a molecule.