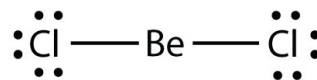
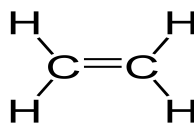


CLASSWORK: Covalent Bonding Activity

What is a covalent bond? _____

A pair of _____ electrons are electrons that are being _____ between two different atoms while a pair of _____ electrons are electrons that are not being _____ otherwise called a _____ of electrons.

Draw a box around the bonding pairs and draw a circle around the lone pairs of electrons in the following bonds



Label the single and double bond in the molecules:

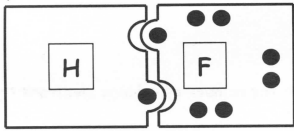
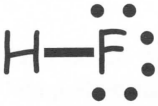
Define single bond:

Double bond:

Triple bond:

Atoms will make bonds until what point?

Follow the directions given to complete the table below using your puzzle pieces:

<p>Example: HF</p> <p>Puzzle:  Draw: </p>	<p>NH₃</p>
<p>CH₄</p>	<p>H₃CCH₃ (usually written C₂H₆)</p>
<p>CH₂ClBr</p>	<p>H₂S</p>
<p>N₂</p>	<p>H₂O</p>
<p>PH₃</p>	<p>HNNH (usually written H₂H₂)</p>
<p>C₂H₄</p>	<p>HCN</p>

Post-Activity Questions

1) List the number of bonds in a:

Single bond _____

Double bond _____

Triple bond _____

2) How many bonds does a carbon atom make (consider the previous question) _____

Why?

Explain how the number of bonds relates to how many valence electrons carbon needs?

3) How many bonds does a nitrogen atom make? _____ Why?

4) How many bonds does Oxygen form? _____

5) How many bonds does H, F, Cl, and Br make _____

6) Explain why are H, F, Cl and Br likely to be on the end of the molecule and not in the middle?

7) What would be the most likely number of bonds formed by the following elements? Base your answer on their number of valence electrons.

Si _____

Br _____

S _____

As _____

O _____

P _____

H _____

N _____

I _____

C _____

Looking Forward:

Draw the atoms with valence electrons and Lewis structures for the following covalent compounds:

Compound	Atom #1 w/ Valence	Atom #2 w/ Valence	Lewis Structure for Compound
CO ₂			
NH ₃			
CH ₄			

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****Draw this table into your notebook under today's worksheet!!!

Part A (single bonds)

Draw the Lewis structures of the following covalent compounds:

NH ₃	H ₃ CCH ₃ (usually written as C ₂ H ₆)
CH ₂ ClBr	CH ₄
H ₂ O	H ₂ O

Part B (double and triple bonds)

Draw the Lewis structures of the following covalent compounds.

N ₂	HCN
H ₂ CCH ₂ (can be written C ₂ H ₄)	HCOOH