

Name: _____ Date: _____ Period: _____

_____ Bonding, Pt. 1

The purpose of this activity is to help conceptualize what different molecules look like based on their chemical notation and conversely, understand a molecule's chemical notation based on its structure. A molecule's chemical notation tells you what kinds of atoms AND how many of those atoms are part of a molecule.



1. Which atoms are part of the above molecule? _____ & _____
2. How many of each atom are there in this molecule? _____ & _____

3. Practice drawing the Lewis dot structures for the following atoms:

Cs

Ar

O

F

H

In your kit, you have black, red, and white "atoms" and some gray connector pieces. The black atoms are carbon (C), red is oxygen (O), white is hydrogen (H). **Make the following molecules.** After you construct them, draw the Lewis dot structure and an illustrated drawing of the model.

notation	Lewis dot	drawing	notation	Lewis dot	drawing
4. OH			5. H ₂ O		
6. CO ₂			7. O ₂		
8. H ₂			9. CH ₄		

Complete questions on backside:

11. What do the gray pieces in the models represent?

12. How can you tell that the bonds in these models are NOT ionic bonds?

13. Why can you make a long chain with the carbon atoms? Why can't you do that with the other atoms in the kit.

When you are finished, play around with the pieces and see what molecules you can come up with. List the ones you build by writing their chemical notation.