Na’am

**Covalent Bonding PBS Interactive Tutorial**

*Directions: Go to the website below and take a set of Cornell notes on covalent bonding, then do the same for ionic bonding. These notes will serve as the material for you to study from and to help you complete the class group work. Once done with your Cornell notes, answer the following questions on this form* ***in a different color*** *and save it to the “Completed Work” folder on your Google drive.*

**PART ONE.** Covalent bonding interactive tutorial website:

<http://www.pbslearningmedia.org/resource/lsps07.sci.phys.matter.covalentbond/covalent-bonding/>

**Covalent bonding questions:**

1. What do you observe when you move two hydrogen atoms closer together?

2. Why do you think nonmetals tend to be good at sharing electrons?

3. Can one atom in this type of reaction win the "tug of war"? What might happen if it did?

4. How can a piece of wood floating on water illustrate the condition of lowest potential energy and maximum stability?

**PART TWO.** Ionic bonding interactive tutorial website:

<http://www.pbslearningmedia.org/resource/lsps07.sci.phys.matter.ionicbonding/ionic-bonding/>

**Ionic bonding questions:**

1. Why do ionic bonds form between metals and nonmetals?

2. In the activity, when Na lost an e- it shrank and the Cl+ grew in size. Does that say anything about the location of the electron before and after it was transferred?

3. Why can different numbers of metal and nonmetal atoms create ionic bonds together?

**PART THREE**. Ionic bonding game.

Next, for more practice on ionic bonding, there is a short game on pairing cations (metals with a positive charge) and anions (nonmetals that take on a negative charge… from the electrons those greedy ghouls will take, aka their oxidation number). Remember the term for atoms that are electron greedy??

Link for ionic bonding game: <https://www.learner.org/interactives/periodic/groups_interactive.html>

My score on the ionic bonding game was a out of 8. If you weren’t perfect, which compounds did you have trouble forming?