

BONDING SIMULATION/TUTORIAL

Ionic Bonding:

Tutorial on Ionic bonding:

<https://wpt.pbslearningmedia.org/resource/lsp07.sci.phys.matter.ionicbonding/ionic-bonding/#.Wkuy21WnG1s>
or <https://tinyurl.com/ycq5xtds>

Describe how ionic compounds form crystals.

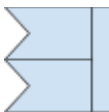
Simulation to help with deriving formulas for ionic compounds.

https://www.learner.org/interactives/periodic/groups_interactive.html

What does this symbol represent in the interactive?



and this one?



Write the name and formula for the compounds you made in the interactive game:

[illegible]

Covalent Bonding

http://wimedialab.pbslearningmedia.org/asset/lsp07_int_covalentbond/

Slides 1-3

1. How is the movement of electrons different when atoms are close?
2. What happens when you try to move the atoms very close together?
3. What happens when you try to move one away from the other slowly?
4. What happens when you try to move one away from the other quickly?

Slides 4-9

5. What are the atoms doing with the electrons? Why?

Slides 10-12

6. Covalent bonds form between what kind of atoms?

Slides 13-16

7. As atoms slowly move closer together what happens to potential energy?
8. What happens to the potential energy if the atoms get too close?

Slides 17-18

9. Describe the relationship between potential energy and bond length.
10. What can be said about the attractive and repulsive forces between atoms when bonded?

Slides 19-21

11. What does the line between the 2 hydrogen atoms represent? (H-H)

Slides 22-23

12. How is a triple bond shown? What does it represent?

Naming Compounds

Slides 30 - 35

13. What prefixes are used to represent the number of atoms in a compound.
14. Write the formulas for the following:

1 = _____

2 = _____

3 = _____

4 = _____

5 = _____

6 = _____

dinitrogen trioxide

nitrogen monoxide

dinitrogen monoxide

dinitrogen tetroxide

nitrogen dioxide