



High School Science Virtual Learning

College Chemistry

Chemical Bonding Virtual Lab

April 30, 2020



High School College Chemistry
Lesson: April 30, 2020

Objective/Learning Target:
**Students will complete lab activities to learn about
chemical bonding.**



Let's Get Started:

1. Give one property of metals.
2. Give one property of an ionic compound.
3. Give one property of a covalent compound.

Let's Get Started:

Answer Key

1. See table for possible answers:

Metallic Bonding	Ionic Bonding	Covalent Bonding
metal + metal	metal + non-metal	non-metal + non-metal
atoms seek stability	atoms seek stability	atoms seek stability
atoms release their electrons to become cations	atoms give off or accept electrons	atoms share electrons with other atoms
	happens between atoms of great difference in electronegativity	happens between atoms of little difference in electronegativity
can be bended without breaking	easily breaks	fragility depends on state
can conduct electricity and heat	ability to conduct may depend on state	ability to conduct may depend on the atoms
high melting and boiling point	high melting and boiling point	low melting and boiling point



Lesson Activity:

Directions

- Use this [answer key](#) to check your work from yesterday.
- This [link](#) is from Khan Academy will help expand your knowledge of bonding.



Practice

Complete the following questions using the information you learned during the lesson activity.

Questions:

1. An ionic bond forms when atoms _____ electrons.
2. Which type of bond has an unequal sharing of electrons?
3. Which type of bond shares electrons evenly from one atom to another?
4. A _____ is a type of element that is both malleable and ductile.
5. Atoms gain or lose electrons to become stable by satisfying _____ rule.

Answer Key:

1. An ionic bond forms when atoms **transfer** electrons.
2. Which type of bond has an unequal sharing of electrons?
Polar covalent
3. Which type of bond shares electrons evenly from one atom to another? **Nonpolar covalent**
4. A **Metal** is a type of element that is both malleable and ductile.
5. Atoms gain or lose electrons to become stable by satisfying **octet** rule.



Additional Practice:

Click on the link below for additional practice.

[Bonding Quiz](#)