

Chemical Bonding Study Guide

Standards 92121

You should be able to answer the following questions for the test on Chemical Bonding:

How many valence electrons does an element have? How can you tell?

What is the definition of a “happy” atom?

How do atoms become positive and negative ions?

What properties are associated with ionic, covalent, and metallic bonds?

Identify which area of the periodic table you would find atoms who are willing to give up electrons.

Describe which types of elements form ionic, covalent, and metallic bonds.

Calculate charge on an atom.

How are electrons organized in an atom?

What is the role of valence electrons in chemical bonding?

Why don't noble gases form chemical bonds?

Describe the electromagnetic force and how it relates to ionic, covalent, and metallic bonding.

Identify the correct symbol and charge of atoms in an ion.

How does energy relate to the giving/taking of electrons in an atom?

What is a chemical bond?

What happens to electrons in covalent bonding?

How does an atom develop a charge?

Compare the three types of bonds based on what happens to the valence electrons of the atoms.

What are the properties of ionic, covalent, and metallic compounds? Why do these properties exist (as it relates to the type of bond)