

# Unit 04: Bonding

Content Area: **Science**  
Course(s): **Chemistry Accelerated**  
Time Period: **Marking Period 2**  
Length: **4 weeks**  
Status: **Published**

## Textbook Resources

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Glencoe Science Chemistry Concepts and Applications

Chapter 4: Formation of Compounds

Chapter 5: Types of Compounds

(Chapter 9: Chemical Bonding)

## Standards

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SCI.9-12.HS-PS1-1	Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.
SCI.9-12.HS-PS1-3	Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.
SCI.9-12.HS-PS1-2	Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.

## Goals/Objectives

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- How do so few elements make so many compounds? And why?
- What is the role of electrons in the formation and properties of compounds?

## Content

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- Covalent v. Ionic bonds
- Molecular v. Ionic substances
- Nomenclature
- The octet rule

## Skills

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- Contrast the properties of molecular and ionic substances.

- Describe the transfer or sharing of electrons to form compounds.
- Write the formula and names of compounds.