

Chapter 6 Chemical Bonding

Chapter Opener

__ **Chapter Overview, TE** Review the objectives listed in the Student Edition.

Section 1 Introduction to Chemical Bonding

PACING: 45 minutes

PENNSYLVANIA ACADEMIC STANDARDS FOR SCIENCE AND TECHNOLOGY:

3.4.A.5 Explain the formation of compounds and their resulting properties using bonding theories.

Objectives

1. **Define** chemical bond.
2. **Explain** why most atoms form chemical bonds.
3. **Describe** ionic and covalent bonding.
4. **Explain** why most chemical bonding is neither purely ionic nor purely covalent.
5. **Classify** bonding type according to electronegativity differences.

FOCUS (5 minutes)

__ **Lesson Starter, TE** Have students consider the causes of the attraction and repulsion between atoms.

MOTIVATE (10 minutes)

__ **Reading Skill Builder, Brainstorming, TE** Have students work in pairs to discuss what is happening in different types of bonding.

TEACH (20 minutes)

__ **PowerPoint**

__ **Visual Strategy, Figure 1, TE** Use the diagrams to help students understand the fundamental difference between ionic and covalent bonding.

__ **Sample Problem A, SE** Demonstrate how to use electronegativity differences to classify bonding

__ **Practice Problems A, SE** Students use electronegativity differences in order to classify bonding.

CLOSE (10 minutes)

__ **Section Review, SE** Students answer end-of-section vocabulary, key ideas, critical thinking, and interpreting graphics questions.