**Minerals of the Earth’s Crust**

**Description:**

The study of minerals is fundamental to the study of the earth. One of the most important skills students need to acquire is the ability to distinguish and identify different types of earth materials, including minerals that are easily recognizable and those that occur inconspicuously in rocks and soil.

**Textbook Chapters:**

**2**. Minerals of the Earth’s Crust

**Section 1: Matter**

**Section 2: Minerals**

**Section 3: Properties of Minerals**

**State Standards:**

E.S. 1.22 Compare the properties of rocks and minerals and their uses.

E.S. 1.27 Illustrate the various processes that are involved in the rock cycle and discuss how the total amount of material stays the same through formation, weathering, sedimentation, and reformation.

**Objectives:**

2.1 Matter, pp. 34–43

2.1 Explain how elements are related to minerals.

2.2 Identify the kinds of particles that make up atoms.

2.3 Explain the differences between ions and isotopes.

2.4 Explain what compounds are and describe why they form.

2.5 Compare and contrast the three major types of chemical bonds.

2.2 Minerals, pp. 44–49

2.6 List five characteristics of minerals.

2.7 Describe the processes that result in mineral formation.

2.8 Explain how minerals can be classified.

2.9 List some of the major groups of minerals.

2.3 Properties of Minerals, pp. 50–55

2.10 Explain why color is often not a useful property in identifying minerals.

2.11 Define the terms luster, crystal form, streak, and Mohs scale.

2.12 Distinguish between cleavage and fracture.

2.13 Explain density and how it can be used to identify substances.

2.14 Describe some other properties that can be used to identify minerals.

**Learning Activities:**

1. Discussion/Lecture on What a Mineral Is

2. Discussion/Lecture on Identifying Minerals with their properties

3. Mineral Identification Lab

4. Mineral Handouts/How we use Minerals

5. Mineral Autobiography Project

6. Chapter 2 Review and Assessment