

## LCCS [8] Grade [Science] Curriculum Overview

Month	Unit
September-October	Unit 1: Rocks & Minerals
October-November	Unit 2: Dinosaurs & Geologic Time
November-December	Unit 3: Measurement & Data Analysis
December-January	Unit 4: States of Matter
January-February	Unit 5: Properties & Changes in Matter
March-April	Unit 6: Atoms, Bonding, & the Periodic Table
April-May	Unit 7: Waves & the Electromagnetic Spectrum
June	Unit 8: Force & Motion

### Unit 1: Rocks & Minerals

**At a Glance:** In this unit students will learn about/review the properties of minerals and see how these properties can be used to identify unknown mineral samples. They will also learn/review the 3 rock types, as well as understand the processes involved in the rock cycle. They will also briefly review basic solar system facts.

**Timeline:** 10 Days

### Unit 2: Dinosaurs & Geologic Time

**At a Glance:** In this unit students will understand that forces acting within the Earth have affected and continue to affect the development and evolution of living organisms. They will learn how fossils form, and how the fossil record reveals information, and how the fossil record reveals information about what life on Earth was like in the past.

**Timeline:** 16 Days

### Unit 3: Measurement & Data Analysis

**At a Glance:** In this unit students will learn the various tools, skills, and methods used to gather and analyze information. They will learn about

metric measurements and how to convert within the metric system. They will review skills learned in 7<sup>th</sup> grade, such as creating data tables and making and interpreting graphs. Students will also learn about temperature and heat, and design a device to minimize heat transfer.

**Timeline:** 16 Days

#### **Unit 4: States of Matter**

**At a Glance:** In this unit students will learn that matter can exist in 3 primary states, solid, liquid, and gas. They will learn what causes matter to change from one state to another, and about some of the properties of the various states of matter.

**Timeline:** 12 Days

#### **Unit 5: Properties & Changes in Matter**

**At a Glance:** In this unit students will learn about physical and chemical properties and changes, and how to distinguish them. They will learn the difference between mixtures and compounds. They will learn what happens during a chemical reaction. They will also learn that mass is conserved during a chemical reaction. Finally, they will learn how to balance a chemical equation.

**Timeline:** 16 Days

#### **Unit 6: Atoms, Bonding, & the Periodic Table**

**At a Glance:** In this unit students will learn that all matter is made of the same fundamental particle, the atom. They will learn how atoms combine, and see how location on the Periodic Table determines reactivity

**Timeline:** 15 Days

#### **Unit 7: Waves & the Electromagnetic Spectrum**

**At a Glance:** In this unit students will learn that waves (such as light, sound, and others) are all around us. They will learn that we are able to perceive some waves using sight and hearing, but we are unable to perceive other types of waves.

**Timeline:** 18 Days

#### **Unit 8: Force & Motion**

**At a Glance:** In this unit students will understand that invisible forces exist, and have an effect on objects on Earth. They will also plan an investigation to study these forces.

**Timeline:** 8 Days