

# The Atmosphere

## Grade 6

### Science

#### Unit 1: Chemical and Physical Properties

#### Louisiana Comprehensive Curriculum

#### Unit Description

Matter and its states/phases are reviewed and chemical and physical properties are explored.

#### Student Understandings

The concepts of mass and density are basic to the development of student understanding of other physical and chemical properties of matter. Building the student's ability to measure matter correctly is also a basic necessity to developing this understanding.

#### Guiding Questions

1. Can students identify the chemical changes associated with the reactions they observed in their investigations?

#### Unit 1 Grade-Level Expectations (GLEs)

Physical Science	
7.	Simulate how atoms and molecules have kinetic energy exhibited by constant motion (PS-M-A4)
8.	Determine the temperatures at which water changes physical phases (e.g., freezing point, melting point, boiling point) (PS-M-A5)

**Grade 6  
Science  
Unit 4: Properties of Energy  
Louisiana Comprehensive Curriculum**

**Unit Description**

This unit introduces the student to the basic forms of energy with an emphasis on the properties of energy. Energy transfer and transformation are also explored. Relationships between forms of energy and classifications of renewable and nonrenewable resources will be considered.

**Student Understandings**

Students need to understand how energy can be transformed or transferred. Forms of energy (i.e., light, heat) can be explored, as well as the ways to measure and transform energy for practical use. Students should be able to distinguish between renewable and nonrenewable energy resources.

**Guiding Questions**

1. Can students cite examples of the various forms of energy?
2. Can students explain where various forms of energy originate and how they are related?
3. Can students describe how various forms of energy are transformed from one form to another?
4. Can students cite examples of energy transformations?
5. Can students describe how light is reflected and refracted?

**Unit 4 Grade-Level Expectations (GLEs)**

<b>Physical Science</b>	
24.	Describe and give examples of how forms of energy may be classified as potential or kinetic energy (PS-M-C1)
25.	Compare forms of energy (e.g., light, heat, sound, electrical, nuclear, mechanical) (PS-M-C1)
26.	Describe and summarize observations of the transmission, reflection, and absorption of sound, light, and heat energy (PS-M-C1)
28.	Explain the law of conservation of energy (PS-M-C2)
37.	Compare how heat is transferred by conduction, convection, and radiation (PS-M-C5)
38.	Identify conditions under which thermal energy tends to flow from a system of higher energy to a system of lower energy (PS-M-C5)