

# **INSTRUCTIONAL OBJECTIVES**

## **Science – First Quarter**

### **Sixth Grade**

#### Scientific Inquiry, Measurement, Cells

The student will:

- Explain observations and inferences
- Distinguish between qualitative and quantitative observation
- Identify the five steps of the scientific method and apply them to scientific experiments
- Demonstrate how to complete the three metric measurements – length, mass, volume
- Know the three basic metric units and apply all six prefixes to them
- Identify simple relationships between metric and English measurement units
- Identify the parts of the microscope and know how to use it
- Know basic structures and functions of plant and animal cells
- Understand that cells are the building blocks of life (Cell unit may extend into 2<sup>nd</sup> quarter)

# INSTRUCTIONAL OBJECTIVES

## Science – Second Quarter

### Sixth Grade

#### Matter, Atomic Theory

The student will:

- Define matter
- Distinguish between physical and chemical properties, physical and chemical changes
- Identify the three states of matter including their properties
- Identify changes of state
- Describe the difference between an element and a compound
- Utilize the periodic table to identify characteristics of elements
- Know and identify the parts of an atom
- Use the periodic table to identify atomic number and atomic mass
- Understand that atoms bond to form molecules

# **INSTRUCTIONAL OBJECTIVES**

## **Science – Third Quarter**

### **Sixth Grade**

Heat, Temperature, Energy, Electricity, Magnetism

The student will:

(Heat, Temperature, Energy Unit)

- Identify the various forms of energy
- Explain energy conversion
- Recognize temperature scales
- Distinguish between heat and temperature
- Explain three forms of heat transfer – conduction, convection, radiation
- Relate heat changes to changes of state

(Electricity, Magnetism Unit)

- Identify basic types of circuits
- Understand the relationship between volts, watts, and amps
- Identify the steps in the process of electricity generation
- Recognize the properties of magnets

# INSTRUCTIONAL OBJECTIVES

## Science – Fourth Quarter

### Sixth Grade

#### Weathering, Erosion, Astronomy

The student will:

(Weathering/Erosion Unit)

- Define weathering and identify agents that cause it
- Distinguish between physical and chemical weathering
- Relate soil composition to climate
- Define erosion and deposition; identify agents that cause it
- Compare and contrast erosion and weathering

(Astronomy Unit)

- Identify relative position and sizes of the planets in our solar system
- Distinguish among inner planets, outer planets, and natural satellites
- Identify the motion and phases of the moon
- Compare and contrast comets and meteorites
- Describe tools and technology used to observe and study the universe

