

## **A+ COMPETENCIES SCIENCE**

**NAME**

### **PHYSICAL SCIENCE**

#### **MASTERY AT 70% OR HIGHER**

Identify questions and problems that can be answered through scientific investigations.  
Design and conduct scientific investigations to answer questions about the physical world.  
Apply safety procedures in the laboratory and in field studies and recognize and avoid potential hazards.  
Investigate and analyze transfer of energy by work through force and distance  
Investigate and analyze forces as interactions that can change motion:  
Analyze reports of scientific investigations of physical phenomena from an informed scientifically literate viewpoint  
Design and conduct scientific investigations to answer questions about the physical world.

### **BIOLOGY**

#### **MASTERY AT 70% OR HIGHER**

The student will carry out scientific investigations effectively and employ the instruments, systems of measurement, and materials of science appropriately.  
Apply safety procedures in the laboratory and in field studies and recognize and avoid potential hazards.  
The student will explain why curiosity, honesty, openness, and skepticism are highly regarded in science.  
The student will pose scientific questions and suggest investigative approaches to provide answers to questions.  
The student will show that connections exist both within the various fields of science and among science and other disciplines including mathematics, social studies, language arts, fine arts, and technology.

### **CHEMISTRY**

#### **MASTERY AT 70% OR HIGHER**

Identify questions and problems that can be answered through scientific investigations.  
Apply safety procedures in the laboratory and in field studies and recognize and avoid potential hazards.  
Analyze reports of scientific investigations of physical phenomena from an informed scientifically literate viewpoint  
Apply quantitative reasoning to chemistry problems  
Learn the basic structure of atoms and how the Periodic Table works.

### **PHYSICS**

#### **MASTERY AT 70% OR HIGHER**

Identify questions and problems that can be answered through scientific investigations.  
Design and conduct scientific investigations to answer questions about the physical world.  
Analyze reports of scientific investigations of physical phenomena from an informed scientifically literate viewpoint

Develop an understanding of how scientific processes have led to the current atomic theory.

Design and conduct scientific investigations to answer questions about the physical world.

Apply safety procedures in the laboratory and in field studies and recognize and avoid potential hazards.

representation of information in appropriate verbal, pictorial, graphical, and mathematical terms

Students should know and be able to apply the laws of forces and motion including Newton's theories.

The laws of conservation of energy and momentum provide a way to predict and describe the movement of objects.

Students should know that energy cannot be created or destroyed, although in many processes energy .

is transferred to the environment as heat



