

**7th Grade Gifted Science****INQUIRY**

## Process Skills

\_\_\_\_\_ Interpret, display, analyze and draw conclusions from the results of a scientific investigation.

## Technological Design.

\_\_\_\_\_ Design, test and evaluate a prototype based on given criteria.

**CONTENT**

## Physical Science

## Physical Science, Measurement and Scientific Method

\_\_\_\_\_ Graph and interpret data from investigations.

## Matter and Its Properties

\_\_\_\_\_ Explain the properties of matter and how matter is affected by energy.

## Atomic/Molecular Structure

\_\_\_\_\_ Explain the structure of the periodic table as it can be used to explain the interactions of matter and energy.

## Solutions, Acids and Bases

\_\_\_\_\_ Compare and contrast acids and bases, including the concepts of pH and neutralization.

## Force and Motion

\_\_\_\_\_ Solve math problems related to Newton's Laws and explain how the relationships apply to natural phenomena.

## Energy, Systems and Mechanics

\_\_\_\_\_ Analyze the effect of forces on objects in a system.

## Energy and Change

\_\_\_\_\_ Compare and contrast chemical and nuclear reactions and explain the relationship of matter and energy.

## Electricity

\_\_\_\_\_ Describe how energy flows in a circuit, how it is stored and mathematical relationships between the variables that describe it.

## Electricity and Magnetism

\_\_\_\_\_ Explain the relationship between electricity and magnetism and solve related problems.

## Vibrations, Waves and Sound

\_\_\_\_\_ Describe the properties of waves and relate them to real world applications.

## Light and Optics

\_\_\_\_\_ Describe the properties of light and relate them to real world applications.

**CONNECTIONS**

## Science Practices

\_\_\_\_\_ Recognize the importance of repeatability of results and collecting sufficient data for a generalization to be made by the scientific community.

## S/T/S (Science, Technology and Society)

\_\_\_\_\_ Identify how the advancement of science and technology are related to the benefits and liabilities of societal issues.