

## Science Curriculum September – December

All science classes will be working with the scientific method as they work to answer problem questions. 8<sup>th</sup> grade will be working on their Science Fair projects. A key objective is to develop critical thinking skills as they learn how to design experiments, create data tables and graphs, analyze their data, and make conclusions.

### 4<sup>th</sup> Grade

4<sup>th</sup> Grade will be learning about the world of living things. Students will classify living things, explore life cycles, learn about the significance of adaptations, and study the flow of energy through Ecosystems. Students will then study Earth and Space science by learning about the water cycle, and types of weather and how to predict it. Students will explore the interactions of the sun, moon, and earth and learn about the planets in the solar system.

### 5<sup>th</sup> Grade

We will be learning about matter. Students will explore the physical and chemical properties of matter, states of matter, and interactions of matter. They will learn the differences between pure substances and compounds, the basic components of matter. They will perform experiments on density, separating a mixture into its components, changes of state, and chemical reactions.

### 6<sup>th</sup> Grade

6<sup>th</sup> grade will be learning the Dynamic Earth. Concepts that will be addressed include Earth's history and changing surface, composition of the Earth, minerals and rocks, volcanoes and earthquakes. Students will then learn about Earth's different types of water, oceanography, Earth's atmosphere and Weather and Climate. Students will explore these concepts through the following activities and labs: Modeling Earth's Spheres, Mineral Identification activities, Mechanical and Chemical Weathering, Wave Action, Moving Sediment, Modeling a Glacier, modeling a Landslide, Modeling Soil Profile, Measuring Weather, and Studying Climate Change.

### 8<sup>th</sup> Grade

8<sup>th</sup> Grade will be learning about the properties and interactions of matter. Concepts that will be addressed include: physical and chemical properties, states of matter, pure substances versus mixtures, the atom and the periodic table, interactions of matter, chemical bonding, writing chemical formulas, and naming compounds. Students will explore these concepts through the following labs: mass vs volume, making a density column, separation of a mixture, changing states of matter, chemical reactions, modeling bonding, balancing equations, catalysts, rates of reaction, using indicators, and making salt.