



# Southmoreland School District

## 1st Grade Science Curriculum Overview

### **Overview:**

At this level, it is expected that students will be able to demonstrate an understanding of living and non-living things and their needs. Students will be able to grow plants and record information about their growth and development. They will be able to conduct simple experiments and investigate questions that surround said investigation. Students will be able to observe the properties of liquids and solids. They will investigate how heating, melting, and cooling changes properties of various materials. Students will distinguish changes in weather and characteristics of weather changes. They will observe and sort earth materials. They will be able to describe bodies of water and landforms. They will recognize patterns of the sun and moon to decipher between night and day.

### **Module Titles:**

**Module 1: Biological Sciences**

**Module 2: Physical Sciences: Chemistry and Physics**

**Module 3: Earth and Space Sciences**

### **Module Overviews:**

**Module 1: Biological Sciences**

Students will be able to categorize living and nonliving things by external characteristics. Students will investigate the dependence of living things on the sun's energy, water, food/nutrients, air, living space, and shelter. They will be able to identify and describe plant parts and their function. Students will grow plants from seeds and describe how they grow and change and compare to adult plants. Students will plan and conduct a simple investigation and understand that different questions require different kinds of investigations. They will use simple equipment (tools) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. Students will use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge.

**Module 2: Physical Sciences: Chemistry and Physics**

Students will plan and conduct investigations to provide evidence that materials can make sounds. Students will observe and describe the properties of liquids and solids through investigation when solids are mixed with other liquids using water. Students will make thoughtful observations to construct an evidence-based result. Students will identify how heating, melting, and cooling may cause changes in properties of materials.



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They will recognize that everything is made of matter to distinguish between scientific fact and opinion. Students will ask questions about objects and organisms to understand that all scientific investigations involve asking and answering questions about comparing answers. Students will demonstrate various types of motion through observations of pushing and pulling objects. Students will demonstrate various types of motion. Students will observe and record daily temperatures. Students will draw conclusions from daily temperature records as related to heating and cooling. Students will recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow

### **Module 3: Earth and Space Sciences**

Students will observe, describe, and sort earth materials (rock, soil, sand, pebbles). They will identify and describe types of fresh and salt-water bodies (ocean, rivers, lakes, ponds), and landforms (plains, mountains, valleys and hills). Students will use observations of the sun, moon, and stars to describe patterns that can be predicted. Students will also make observations at different times of year to relate the amount of daylight to the time of year, and will explain why shadows fall in different places at different times of the day.