

<b>Unit</b>	<b>Topic(s)</b>	<b>Standard(s)</b>	<b>Concepts</b>
1	<p><b>Life Science-</b> This topic focuses on the study of the basics of Modern Cell Theory. All organisms are composed of cells, which are the fundamental unit of life. Cells carry on the many processes that sustain life. All cells come from pre-existing cells.</p>	<p>6.LS.1 Cells are the fundamental unit of life. 6.LS.2 All cells come from pre-existing cells. 6.LS.3 Cells carry on specific functions that sustain life. 6.LS.4 Living systems at all levels of organization demonstrate the complementary nature of structure and function.</p>	<p>Cells have particular structures that are related to their functions. These functions are regulated and controlled (e.g., a cell membrane controls what can enter and leave the cell). The organization of living systems includes an explanation of the role of cells, tissues, organs and organ systems that carry out life functions for organisms. Connections are to be made between cellular organelles and processes. These roles include maintaining homeostasis, gas exchange, energy transfers and transformation, transportation of molecules, disposal of wastes and synthesis of new molecules.</p>
2	<p><b>Earth &amp; Space Science-</b> This topic focuses on the study of rocks, minerals and soil, which make up the lithosphere. Classifying and identifying different types of rocks, minerals and soil can decode the past environment in which they formed.</p>	<p>6.ESS.1 Minerals have specific, quantifiable properties. 6.ESS.2 Igneous, metamorphic and sedimentary rocks have unique characteristics that can be used for identification and/or classification. 6.ESS.3 Igneous, metamorphic and sedimentary rocks form in different ways. 6.ESS.4 Soil is unconsolidated material that contains nutrient matter and weathered rock. 6.ESS.5 Rocks, mineral and soils have common and practical uses</p>	<p>Most rocks are composed of one or more minerals. Minerals have specific properties that can be used for identification. The properties that can be used for testing minerals include luster, hardness, cleavage, streak, magnetism, fluorescence and/or crystal shape. At this grade level, common minerals (including those on Mohs hardness scale) are used in the identification process. A representative sample of minerals should be used so that different testing methods can be applied and demonstrated. Appropriate tools and safety procedures must be used when testing mineral properties. Technology can provide identification information and research materials to assist in mineral investigations.</p>
3	<p><b>Matter and Motion -</b></p>	<p>6.PS.1 Matter is made up of small</p>	<p>Matter is made of atoms, which are particles</p>

	<p>This topic focuses on the study of foundational concepts of the particulate nature of matter, linear motion, and kinetic and potential energy.</p>	<p>particles called atoms. 6.PS.2 Changes of state are explained by a model of matter composed of particles that are in motion. 6.PS.3 There are two categories of energy: kinetic and potential. 6.PS.4 An object's motion can be described by its speed and the direction in which it is moving.</p>	<p>that are too small to be seen, even with a light microscope. Matter has properties of mass and volume. Mass measures the amount of matter in an object (e.g., a wood block) or substance (e.g., water), and volume measures the three-dimensional space that matter occupies. Mass can be measured with a balance. The volume of solids can be determined by water displacement or calculated from the dimensions of a regular solid. Equal volumes of different substances usually have different masses. Some materials, like lead or gold, have a lot of mass in a relatively small space. Other materials, like packing peanuts and air, have a small mass in a relatively large amount of space. This concept of comparing substances by the amount of mass the substance has in a given volume is known as density.</p> <p>An element is a chemical substance that cannot be broken down into simpler substances. There are approximately 90 different naturally occurring elements that have been identified. There are additional elements that were made in a laboratory, but these elements are not stable. All atoms of any one element are alike but are different from atoms of other elements. Atoms of elements can join together to form molecules.</p>
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