5th Grade SEEd Standards Pacing Guide

Strand SLCSD Science Prioritized Standards*

5.1 Characteristics and Interactions of Earth's Systems

Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). Within these systems, the location of Earth's land and water can be described. Also these systems interact in multiple ways. Weathering and erosion are examples of interactions between Earth's systems. Some interactions cause landslides, earthquakes, and volcanic eruptions that impact humans and other organisms. Humans cannot eliminate natural hazards, but solutions can be designed to reduce their impact.

5.1.1 Plate Boundaries

Oct. 5 - Oct. 30

Analyze and interpret data to describe patterns of Earth's features. Emphasize most earthquakes and volcanoes occur in bands that are often along the boundaries between continents and oceans while major mountain chains may be found inside continents or near their edges. Examples of data could include maps showing locations of mountains on continents and the ocean floor or the locations of volcanoes and earthquakes. (ESS2.B)

5.1.2 Earth's Water.

Nov. 2- Nov. 13

Use mathematics and computational thinking to compare the quantity of saltwater and freshwater in various reservoirs to provide evidence forthe distribution of water on Earth. Emphasize reservoirs such as oceans, lakes, rivers, glaciers, groundwater, and polarice caps. Examples of using mathematics and computational thinking could include measuring, estimating, graphing, or finding percentages of quantities. (ESS2.C)

5.1.3 Weather Erosion

Nov. 16 - Dec. 11

Ask questions to plan and carry out investigations that provide evidence for the effects of weathering and the rate of erosion on the geosphere. Emphasize weathering and erosion by water, ice, wind, gravity, or vegetation. Examples could include observing the effects of cycles of freezing and thawing of water on rock or changing the slope in the downhill movement of water. (ESS2.A, ESS2.E)

Rise Benchmarks 5.1.2 and 5.1.3 as SLCSD Interims. Dec 14-18 or Jan. 4-8

Properties and Changes of Matter

All substances are composed of matter. Matter is made of particles that are too small to be seen but still exist and can be detected by other means. Substances have specific properties by which they can be identified. When two or more different substances are combined a new substance with different properties may be formed. Whether a change results in a new substance or not, the total amount of matter is always conserved.

5.2.1 Matter is Made of Particles

Jan. 4 - Jan 29

Develop and use a model to describe that matter is made of particles on a scale that is too small to be seen. Emphasize making observations of changes supported by a particle model of matter. Examples could include adding air to expand a balloon, compressing air in a syringe, adding food coloring to water, or dissolving salt in water and evaporating the water. The use of the terms atoms and molecules will be taught in Grades 6 through 8. (PS1.A)

5.2.2 Propertes of Matter

Feb. 2- Feb. 19

Ask questions to plan and carry out investigations to identify substances based on patterns of their properties. Emphasize using properties to identify substances. Examples of properties could include color, hardness, conductivity, solubility, or a response to magnetic forces. Examples of substances could include powders, metals, minerals, or liquids. (PS1.A)

RISE Benchmarks 5.2.3 as SLCSD Interims. Mar. 22-28

5.2.3 Combining Substance

Feb.18 - Mar. 19

Plan and carry out investigations to determine the effect of combining two or more substances. Emphasize whether a new substance is or is not created by the formation of a new substance with different properties.

Examples could include combining vinegar and baking soda or rusting an iron nail in water. (PS1.B)

5.3	Cycling	of Matter in	Ecosystems
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Matter cycles within ecosystems and can be traced from organism to organism. Plants use energy from the Sun to change air and water into matter needed for growth. Animals and decomposers consume matter for their life functions, continuing the cycling of matter. Human behavior can affect the cycling of matter. Scientists and engineers design solutions to conserve Earth's environments and resources.

5.3.3 Movement of Matter Apr. 5 - Apr. 23

RISE Benchmark 5.3.3 as SLCSD Interim. April 26-30