Sixth Grade Curriculum Map: Science (p. 1)

Theme-Order and Organization

This theme focuses on helping students use scientific inquiry to discover patterns, trends, structures and relationships that may be described by simple principles. These principles are related to the properties or interactions within and between systems.

Science Inquiry and Application-*Ongoing throughout year* (SIA)

During the years of grades 5-8, all students must use the following scientific processes, with appropriate laboratory safety techniques, to construct their knowledge and understanding in all science content areas:

- Identify questions that can be answered through scientific investigations;
- Design and conduct a scientific investigation;
- Use appropriate mathematics, tools and techniques to gather data and information;
- Analyze and interpret data;
- Develop descriptions, models, explanations and predictions;
- Think critically and logically to connect evidence and explanations;
- Recognize and analyze alternative explanations and predictions;
- Communicate scientific procedures and explanations.

1st Nine Weeks

Topic: Cellular to Multi-cellular (Life Science-LS)

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.

LS.6.9 - Cells are the fundamental unit of life.
LS.6.10 - All cells come from pre-existing cells.
LS.6.11 - Cells carry on specific functions that sustain life.
LS.6.12 - Living systems at all levels of organization demonstrate the complementary nature of structure and function.

2nd Nine Weeks

Topic: Matter and Motion (Physical Science-PS)

This topic focuses on the study of foundational concepts of the particulate nature of matter, linear motion, and kinetic and potential energy.

PS.6.6 - All matter is made up of small particles called atoms.
PS.6.7 - Changes of state are explained by a model of matter composed of atoms and/or molecules that are in motion.

3rd Nine Weeks

Topic: Matter and Motion (Physical Science-PS)

This topic focuses on the study of foundational concepts of the particulate nature of matter, linear motion, and kinetic and potential energy.

PS.6.8 - There are two categories of energy: kinetic and potential.
PS.6.9 - An object's motion can be described by its speed and the direction in which it is moving.

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4th Nine Weeks

Topic: Rocks, Minerals and Soil (Earth and Space and Science-ESS)

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.

ESS.6.1 - Minerals have specific, quantifiable properties.
ESS.6.2 - Igneous, metamorphic and sedimentary rocks have unique characteristics that can be used for identification and/or classification.
ESS.6.3 - Igneous, metamorphic and sedimentary rocks form in different ways.
ESS.6.4 - Soil is unconsolidated material that contains nutrient matter and weathered rock.
ESS.6.5 - Rocks, minerals and soils have common and practical uses.