

Eighth 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: Forces and Motion (Physical Science – PS)

This topic focuses on forces and motion within, on and around the Earth and within the universe.

- 8.PS.1 – Forces between objects act when the objects are in direct contact or when they are not touching.
- 8.PS. 2 – Forces have magnitude and direction.
- 8.PS.3 – There are different types of potential energy.

2nd Nine Weeks

Topic: Physical Earth (Earth and Space Science – ESS)

- 8.ESS.1 – The composition and properties of Earth’s interior are identified by the behavior of seismic waves.
- 8.ESS.1 – Earth’s crust consists of major and minor tectonic plates that move relative to each other.
- 8.ESS.3 – A combination of constructive and destructive geologic processes formed Earth’s surface.
- 8.ESS.4 – Evidence of the dynamic changes of Earth’s surface through time is found in the geologic record.

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3rd Nine Weeks

Topic: Species and Reproduction (Life Science – LS) *This topic focuses on continuation of the species.*

8.LS.1 – Diversity of species occurs through gradual processes over many generations. Fossil records provide evidence that changes have occurred in number and types of species.

8.LS.2 – Reproduction is necessary for the continuation of every species.

8.LS.3 – The characteristics of an organism are a result of inherited traits received from parent (s).

4th Nine Weeks

Review Common Core Standards in preparation for state testing.