

West Northfield School District #31 Science Curriculum

Grade Six

Earth and Space Sciences

MS-ESS1 Earth's Place in the Universe

1. [MS-ESS1-1](#) Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.
2. [MS-ESS1-2](#) Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.
3. [MS-ESS1-3](#) Analyze and interpret data to determine scale properties of objects in the solar system.
4. [MS-ESS1-4](#) Construct a scientific explanation based on evidence from rock strata for how the geologic timescale is used to organize Earth's 4.6 billion-year-old history.

MS-ESS2 Earth's Systems

1. [MS-ESS2-1](#) Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.
2. [MS-ESS2-2](#) Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.
3. [MS-ESS2-3](#) Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of past plate motions.
4. [MS-ESS2-4](#) Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.
5. [MS-ESS2-5](#) Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions.
6. [MS-ESS2-6](#) Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.

MS-ESS3 Earth and Human Activity

7. [MS-ESS3-1](#) Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.
8. [MS-ESS3-2](#) Analyze and interpret data on natural hazards to forecast catastrophic events and inform the development of technologies to mitigate their effects.

9. [MS-ESS3-3](#) Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.
10. [MS-ESS3-4](#) Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.
11. [MS-ESS3-5](#) Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.