Brandon Valley School District
Science
Scope and Sequence
Grade 6

Quarter 1

Timeline (month/days)	Standard(s)
8 Weeks	**Space Science** 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. MS-ESS1-2 Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system. MS-ESS1-3 Analyze and interpret data to determine scale properties of objects in the solar system.
4 Weeks	**Energy on Earth** MS-ESS2-1 Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process. 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.

Quarter 2

Timeline (month/days)	Standard(s)
6 Weeks	**Fossils and Geoscience Processes** MS-ESS2-2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales. MS-ESS2-3 Analyze and interpret data on the age of the Earth, distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions. MS-ESS3-2 Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

Quarter 3

Timeline (month/days)	Standard(s)
4 Weeks	**Human Impact** MS-ESS3-3 Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment. 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.
4 Weeks	**Climate** 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-ESS3-5 Ask questions to clarify evidence of the factors that may have caused a change in global temperatures over the past century.

Quarter 4

Timeline (month/days)	Standard(s)
6 Weeks	**Weather** 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. MS-ESS2-5 Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions. MS-ESS3-2 Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

*Pink-priority, Yellow-supporting, Green-supplementary.
*60 minute class periods

Notes Q1

MS-ESS1-1 Three Weeks- Seasons, Moon Phases, Eclipses

MS-ESS1-2 Three Weeks- Gravity, Orbits, Sun

MS-ESS1-3 Two Weeks - Scale Models, Planets

McGraw-Hill Textbook and LearnSmart: Chapter 19, 20, 21, 22

MS Earth Science: Space Science Transition Documents - Phenomena

Newsela: Seasons, Moon, Gravity, Orbits, Planets, Stars

Gizmo: Seasons in 3D, 3D Eclipse, Eclipse, Gravity Pitch, Solar System, Solar System Explorer, Weight and

Mass, Moonrise, Moonset, and Phases

Q1 & Q2
MS-ESS2-1 Two Weeks MS-ESS3-1 Two Weeks
Week 1 Minerals
Week 2 Weathering, Erosion, Deposition
Week 3 Rock Types
Week 4 Rock Cycle
McGraw-Hill Textbook and LearnSmart: Chapter 3, 4, 5, 6

MS Energy on Earth: Energy On Earth Transition Documents- Phenomena

Newsela: Minerals, Rocks, Rock Cycle, Weathering & Erosion

Gizmo: Rock Cycle, Weathering, Erosion Rates, River Erosion, Mineral Identification

Notes Q2
MS- ESS2-2 MS- ESS2-3 MS-ESS3-2 (6 Weeks)
Week 1 Earth's Layers
Week 2 Plate Tectonics
Week 3 Earth Dynamics
Week 4 Earthquakes
Week 5 Volcanoes
Week 6 Fossils & Geological Time

McGraw-Hill Textbook and LearnSmart: Chapter 2, 7, 8. 9. 10. 11

MS Fossils and Geoscience Processes Transition Documents- Phenomena

Newsela: Layers of Earth, Plate Tectonics, Landforms, Earthquakes, Volcanoes, Fossils

Gizmo: Plate Tectonics

Notes Q3

MS-ESS

McGraw-Hill Textbook and LearnSmart: Chapter

MS Earth Science: Transition Documents - Phenomena

Newsela:

Gizmo: Carbon Cycle, GMOs and the Environment, Coral Reefs 2 - Biotic Factors, Greenhouse Effect - Metric

Notes Q4

MS-ESS

McGraw-Hill Textbook and LearnSmart: Chapter

MS Earth Science: Transition Documents - Phenomena

Newsela:

Gizmo: Coastal Winds and Clouds - Metric, Hurricane Motion - Metric, Weather Maps - Metric