

NGSS MS-ESS2

Earth's Systems

Full Standard BUNDLE

- ✓ Everything You Need to Teach NGSS MS-ESS2
- ✓ Daily Teaching Timeline Included for Each Standard
- ✓ Lessons, Activities, Labs, Projects, and more
- ✓ MS-ESS2-1, MS-ESS2-2, MS-ESS2-3, MS-ESS2-4, MS-ESS2-5, MS-ESS2-6



Bundles Included

NGSS MS-ESS2-1 Curriculum Bundle

The Cycling of Earth's Materials

- ✓ 2 Lessons and 4 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS2-1



NGSS MS-ESS2-2 Curriculum Bundle

Shaping the Earth

- ✓ 5 Lessons and 5 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS2-2



NGSS MS-ESS2-3 Curriculum Bundle

Evidence of Plate Tectonics - Fossils, Rock Cycle, and Geologic Time

- ✓ 3 Lessons and 4 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS2-3



NGSS MS-ESS2-4 Curriculum Bundle

The Water Cycle

- ✓ 1 Lesson and 5 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS2-4



NGSS MS-ESS2-5 Curriculum Bundle

How Air Masses Cause Weather Changes

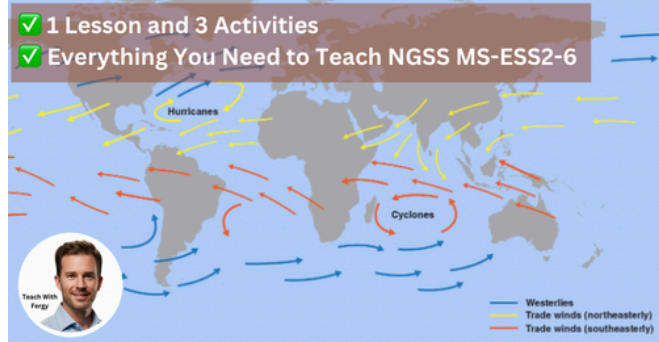
- ✓ 2 Lessons and 4 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS2-5



NGSS MS-ESS2-6 Curriculum Bundle

How Unequal Heating and Earth's Rotation Shape Climate

- ✓ 1 Lesson and 3 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS2-6



Everything You Need to Completely Cover NGSS MS-ESS2

Complete Lessons

Activities

Labs

Projects



Includes a Daily Teaching Timeline for the Standard and the Resources it Uses

MS ESS2 Earth's Systems

MS-ESS2-1. Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process. [Clarification Statement: Emphasis is on the processes of melting, crystallization, weathering, deformation, and sedimentation, which act together to form minerals and rocks through the cycling of Earth's materials.] [Assessment Boundary: Assessment does not include the identification and naming of minerals.]

Resources:

- Rock Types and the Rock Cycle Lesson
- Earth's Systems and the Rock Cycle Review Game Science Word Sprint
- The Rock Cycle - Scavenger Hunt
- The Rock Cycle Lab Station Activity
- The Rock Cycle Word Search and Scramble Activity
- Weathering, Erosion, and Deposition Lesson

NGSS Standard Daily Teaching Plan

Lesson Length: 55 minutes

Timeframe: 6 Days

Day	Lesson/Activity	Notes
Day 1	Rock Types and the Rock Cycle Lesson	
Day 2	Rock Types and the Rock Cycle Lesson Complete The Rock Cycle Word Search and Scramble Activity	
Day 3	The Rock Cycle Lab Station Activity	
Day 4	The Rock Cycle - Scavenger Hunt	

MS ESS2 Earth's Systems

MS-ESS2-5. Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions. [Clarification Statement: Emphasis is on how air masses flow from regions of high pressure to low pressure, causing weather (defined by temperature, pressure, humidity, precipitation, and wind) at a fixed location to change over time, and how sudden changes in weather can result when different air masses collide. Emphasis is on how weather can be predicted within probabilistic ranges. Examples of data can be provided to students (such as weather maps, diagrams, and visualizations) or obtained through laboratory experiments (such as with condensation).] [Assessment Boundary: Assessment does not include recalling the names of cloud types or weather symbols used on weather maps or the reported diagrams from weather stations.]

Resources:

- How Air Masses Shape Our Weather Lesson
- Simulated Air Mass Collision - Lab Activity
- Weather Map Detective - Activity
- Water and Weather Lesson
- How Weather Works Reading
- Weather Climate Word Search and Scramble

NGSS Standard Daily Teaching Plan

Lesson Length: 55 minutes

Timeframe: 6 Days

Day	Lesson/Activity	Notes
Day 1	How Air Masses Shape Our Weather Lesson Start Simulated Air Mass Collision - Lab Activity	
Day 2	Finish Simulated Air Mass Collision - Lab Activity How Weather Works Reading	
Day 3	Finish How Weather Works Reading Weather Map Detective - Activity	
Day 4	Water and Weather Lesson	
Day 5	Finish Water and Weather Lesson Weather Climate Word Search and Scramble	
Day 6	Complete any outstanding activities	

MS ESS2 Earth's Systems

MS-ESS2-2. Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales. [Clarification Statement: Emphasis is on how processes change Earth's surface at time and spatial scales that can be large (such as slow plate motions or the uplift of large mountain ranges) or small (such as rapid landslides or microscopic geochemical reactions), and how many geoscience processes (such as earthquakes, volcanoes, and meteor impacts) usually behave gradually but are punctuated by catastrophic events. Examples of geoscience processes include surface weathering and deposition by the movements of water, ice, and wind. Emphasis is on geoscience processes that shape local geographic features, where appropriate.]

Resources:

- Earthquakes, Volcanoes and Tsunamis Lesson
- Earthquakes and Volcanoes - Scavenger Hunt
- Earthquakes and Volcanoes Lab Station Activity
- Earthquakes Reading
- Earth's Layers Lesson
- Tectonic Plates Lesson
- Plate Tectonics Reading
- Plate Tectonics Lab Station Activity
- Weathering, Erosion, and Deposition Lesson
- Caves and How They Form Lesson

NGSS Standard Daily Teaching Plan

Lesson Length: 55 minutes

Timeframe: 10 Days

Day	Lesson/Activity	Notes
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MS ESS2 Earth's Systems

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. [Clarification Statement: Emphasis is on the ways water changes its state as it moves through the multiple pathways of the hydrologic cycle. Examples of models can be conceptual or physical.] [Assessment Boundary: A quantitative understanding of the latent heats of vaporization and fusion is not assessed.]

Resources:

- Water Cycle Lesson
- Bill Nye Video Worksheet - The Water Cycle
- Crash Course Video Worksheet - The Hydrologic and Carbon Cycles
- Water Cycle Diagram Activity
- The Water Cycle Word Search and Scramble Activities
- The Water Cycle Reading

NGSS Standard Daily Teaching Plan

Lesson Length: 55 minutes

Timeframe: 6 Days

Day	Lesson/Activity	Notes
Day 1	Water Cycle Lesson	
Day 2	Bill Nye Video Worksheet - The Water Cycle or Crash Course Video Worksheet - The Hydrologic and Carbon Cycles	
	The Water Cycle Word Search and Scramble Activities	
Day 3	The Rock Cycle Lab Station Activity	
Day 4	Water Cycle Diagram Activity	
Day 5	Water Cycle Diagram Activity Complete	
Day 6	The Water Cycle Reading	

MS ESS2 Earth's Systems

MS-ESS2-3. Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions. [Clarification Statement: Examples of data include similarities of rock and fossil types on different continents, the shapes of the continents (including continental shelves), and the locations of ocean structures (such as ridges, fracture zones, and trenches).] [Assessment Boundary: Paleomagnetic anomalies in oceanic and continental crust are not assessed.]

Resources:

- Fossils and Geologic Time Lesson
- Fossils and Geologic Time Lab Station Activity
- Fossils Reading
- Geologic Time Reading
- Science Story Prompt the Earths Puzzle A Geologic Adventure
- Tectonic Plates Lesson
- Rock Types and the Rock Cycle Lesson

NGSS Standard Daily Teaching Plan

Lesson Length: 55 minutes

Timeframe: 6 Days

Day	Lesson/Activity	Notes
Day 1	Fossils and Geologic Time Lesson	
Day 2	Fossils and Geologic Time Lab Station Activity	
Day 3	Fossils Reading or Geologic Time Reading	

MS ESS2 Earth's Systems

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. [Clarification Statement: Emphasis is on how patterns vary by latitude, altitude, and geographic land distribution. Emphasis of atmospheric circulation is on the sunlight-driven latitudinal banding, the Coriolis effect, and resulting prevailing winds; emphasis of ocean circulation is on the transfer of heat by the global ocean convection cycle, which is constrained by the Coriolis effect and the outlines of continents. Examples of models can be diagrams, maps and globes, or digital representations.] [Assessment Boundary: Assessment does not include the dynamics of the Coriolis effect.]

Resources:

- Regional Climates Lesson
- Atmospheric Circulation Reading
- Why The Wind Blows Reading
- Ocean Currents and Climate Simulation Activity

NGSS Standard Daily Teaching Plan

Lesson Length: 55 minutes

Timeframe: 4 Days

Day	Lesson/Activity	Notes
Day 1	Regional Climates Lesson	
Day 2	Atmospheric Circulation Reading and Why The Wind Blows Reading	
Day 3	Ocean Currents and Climate Simulation Activity	
Day 4	Complete any outstanding readings or activities	

Who is this Bundle for?

- **Teachers who teach Middle School Science and use the NGSS**
- **Teachers who want multiple resources at their fingertips including lessons and a variety of activities, in order to meet the standard**
- **Teachers who don't have time to develop their own resources or organize what to teach and when**