

## Example Proficiency Scale: MS-ESS-1.1 Earth-Sun-Moon

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.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught. <ul style="list-style-type: none"><li>• Apply knowledge of patterns of motion in the Earth-moon-sun system to a novel situation.</li></ul> Examples may include: <ul style="list-style-type: none"><li>– Given a possible change in the motion, position, or tilt of objects in the system, predict what changes would occur in the system.</li><li>– Explain motions and relationships in a different system.</li></ul>
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.
<b>Score 3.0</b>	Target Goal/Learning Intention: <ul style="list-style-type: none"><li>• Develop a model of the Earth-moon-sun system that shows:<ul style="list-style-type: none"><li>○ Relative positions of the Earth, moon, and sun.</li><li>○ Motions of the Earth, moon, and sun.</li></ul></li><li>• Use the model to describe:<ul style="list-style-type: none"><li>○ The positional relationships of the Earth, moon, and sun during solar and lunar eclipses.</li><li>○ The positional relationships of the Earth, moon, and sun during the phases of the moon.</li><li>○ The positional relationship of the Earth and sun during the various seasons, including tilt of the Earth's axis</li></ul></li></ul>
2.5	No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.
<b>Score 2.0</b>	Simpler Goal/Intention: <ul style="list-style-type: none"><li>• Recognize and recall specific vocabulary such as ellipse, orbit, rotation, revolution, gravity, phase, and eclipse.</li><li>• Explain why objects in the sky appear to move.</li><li>• Summarize motions of Earth, moon, and sun (i.e., rotation and revolution of objects).</li><li>• Identify what causes moon phases.</li><li>• Identify what causes eclipses.</li><li>• Identify how the tilt of the earth causes differences in the directness of sunlight reaching the surface.</li><li>• Identify how the tilt of the Earth and revolution around the sun causes seasons.</li></ul>
1.5	Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.
<b>Score 1.0</b>	With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.
0.5	With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.
<b>Score 0.0</b>	Even with help, no demonstration of content, processes and/or skills.



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## Example Proficiency Scale: MS-ESS-1.2 Orbital Motion

Develop and use a model to describe the role of gravity in the orbital motions within galaxies and the solar system.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"> <li>• Apply principles of gravity to predict motions within galaxies or the solar system in a novel situation.</li> </ul> <p>Examples may include:</p> <ul style="list-style-type: none"> <li>– Predict changes to motion of objects in our solar system if the mass of the Sun increased or decreased.</li> <li>– Predict what would happen to Jupiter’s motions if it were closer to the Sun.</li> </ul>
3.5	<p>In addition to score 3.0 performance, in-depth inferences and applications with partial success.</p>
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"> <li>• Draw or build a model of a space system (solar system or galaxy) and identify the: <ul style="list-style-type: none"> <li>○ more massive object (i.e., blackhole, Sun),</li> <li>○ orbiting objects (i.e., planets, moons, asteroids),</li> <li>○ motions of objects in the system, and</li> <li>○ direction of the pull of gravity on the objects.</li> </ul> </li> <li>• Use a model to describe that: <ul style="list-style-type: none"> <li>○ gravity increases with mass,</li> <li>○ gravity decreases with distance, and</li> <li>○ gravity is holding the system together.</li> </ul> </li> </ul>
2.5	<p>No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.</p>
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"> <li>• Recognize and recall specific vocabulary such as gravity, mass, distance, orbit, force, galaxy and solar system.</li> <li>• Identify the relationship between mass and gravitational force.</li> <li>• Identify the relationship between distance and gravitational force.</li> <li>• Identify the role of gravity in maintaining an orbit.</li> <li>• Describe the role of gravity in the formation of the solar system.</li> <li>• Compare the mass and orbits of objects in the solar system. (<i>MS-ESS-1.3</i>)</li> </ul>
1.5	<p>Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.</p>
<b>Score 1.0</b>	<p>With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.</p>
0.5	<p>With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.</p>
<b>Score 0.0</b>	<p>Even with help, no demonstration of content, processes and/or skills.</p>



## Example Proficiency Scale: MS-ESS-1.4 Earth's History

Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to analyze Earth's history.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"> <li>● Apply principles of geologic time to answer questions in a novel situation.</li> </ul> <p>Examples may include:</p> <ul style="list-style-type: none"> <li>– Predict future events in the record (extinctions).</li> <li>– Evaluate/predict differences on another planet (one without water).</li> <li>– Investigate limitations of relative age studies.</li> </ul>
3.5	<p>In addition to score 3.0 performance, in-depth inferences and applications with partial success.</p>
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"> <li>● Construct an explanation:             <ul style="list-style-type: none"> <li>○ determine the relative order of events in the rock record and use the rock record to explain Earth's history.</li> </ul> </li> <li>● Explanations include:             <ul style="list-style-type: none"> <li>○ examples from rock strata and patterns of formation,</li> <li>○ use of fossil record and/or index fossils,</li> <li>○ evidence from real-world situations, and</li> <li>○ reasoning to connect evidence to the ideas in the explanation.</li> </ul> </li> </ul>
2.5	<p>No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.</p>
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"> <li>● Recognize and recall specific vocabulary such as extinctions, absolute age, relative age, strata, superposition, cross-cutting, and index fossil.</li> <li>● Recognize that events (e.g., volcanic eruptions, mass extinctions, asteroid impacts) are organized and divided into portions in geologic time.</li> <li>● List causes for disturbances in the strata (e.g., cross-cutting).</li> <li>● Use superposition and crosscutting to sequence strata.</li> <li>● Identify differences between relative and absolute ages.</li> </ul>
1.5	<p>Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.</p>
<b>Score 1.0</b>	<p>With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.</p>
0.5	<p>With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.</p>
<b>Score 0.0</b>	<p>Even with help, no demonstration of content, processes and/or skills.</p>



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## Example Proficiency Scale: MS-ESS-2.1 Rock Cycle

Develop a model to describe the cycling of Earth's materials and the internal and external flows of energy that drive the rock cycle processes.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"> <li>Apply principles of rock material cycling to predict differences in the system based on a given change.</li> </ul> <p>Examples may include:</p> <ul style="list-style-type: none"> <li>Predict ways that the cycle would change if the heat of the earth were to go cold or to get hotter.</li> <li>Compare to a different planet.</li> <li>Identify the indirect cycles – anomalies</li> <li>Analyze actual durations of processes.</li> </ul>
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"> <li>Use a model of the rock cycle to describe <ul style="list-style-type: none"> <li>the cycling of Earth's materials,</li> <li>the internal and external energy that drives the cycling,</li> <li>location of processes, and</li> <li>how the visible characteristics of materials change.</li> </ul> </li> </ul>
2.5	No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"> <li>Recognize and recall specific vocabulary such as metamorphic, igneous, sedimentary, sediment, process, convection current, density, chemical change, and physical change.</li> <li>Identify processes of melting, cementation, crystallization, weathering, and deformation.</li> <li>Identify the energy sources that drive the rock cycle. (Sun, Earth's interior)</li> <li>Categorize processes into chemical or physical change.</li> <li>Explore a model of Earth's interior and exterior that includes: <ul style="list-style-type: none"> <li>layers of the interior (core, mantle, crust),</li> <li>convection currents, and</li> <li>the cycling of rock materials.</li> </ul> </li> </ul> <p>(can be two separate models or one combined model)</p>
1.5	Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.
<b>Score 1.0</b>	With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.
0.5	With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.
<b>Score 0.0</b>	Even with help, no demonstration of content, processes and/or skills.



## Example Proficiency Scale: MS-ESS-2.2 Earth's Changing Surface

Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"> <li>Apply principles of geoscience processes to predict how landforms are changed by a novel situation.</li> </ul> <p>Examples may include:</p> <ul style="list-style-type: none"> <li>Develop a prediction of what a landform will look like in the future.</li> <li>Predict the geological outcome of a future catastrophic event.</li> </ul>
3.5	<p>In addition to score 3.0 performance, in-depth inferences and applications with partial success.</p>
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"> <li>Construct an explanation including the ideas that: <ul style="list-style-type: none"> <li>processes that exist today also existed in the past.</li> <li>geoscience processes change Earth's surface at varying time and spatial scales. <ul style="list-style-type: none"> <li>Time: Fast or slow (rapid or gradual)</li> <li>Spatial Scale: Large-scale or small-scale</li> </ul> </li> </ul> </li> <li>Explanations include: <ul style="list-style-type: none"> <li>evidence from real-world situation, and</li> <li>reasoning to connect evidence to the ideas in the explanation.</li> </ul> </li> </ul>
2.5	<p>No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.</p>
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"> <li>Recognize and recall specific vocabulary such as geoscience processes, gradual, catastrophic, spatial, large-scale, and small-scale.</li> <li>Identify types of fast (rapid) and slow (gradual) changes to the earth's surface.</li> <li>Identify types of large-scale and small-scale changes to Earth's surface.</li> <li>Summarize that processes that change Earth's surface operate today as they did in the past and will continue to do so in the future.</li> <li>Summarize how long it takes for various geoscience processes to change the Earth's surface.</li> </ul>
1.5	<p>Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.</p>
<b>Score 1.0</b>	<p>With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.</p>
0.5	<p>With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.</p>
<b>Score 0.0</b>	<p>Even with help, no demonstration of content, processes and/or skills.</p>



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## Example Proficiency Scale: MS-ESS-2.3 Past Plate Motions

Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"> <li>● Apply principles of data analysis used in studying continental drift to a novel situation in another time or place.</li> </ul> <p>Examples may include:</p> <ul style="list-style-type: none"> <li>– Create new supercontinent based on alternate land arrangements</li> <li>– Create unique arrangements of land, including evidence, from another planet.</li> <li>– Trade and complete another person’s land puzzles.</li> </ul>
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"> <li>● Analyze and interpret data (find patterns and relationships) to provide evidence of past plate motions, including: <ul style="list-style-type: none"> <li>○ Continental shapes</li> <li>○ How regions of different continents that share similar fossils, rocks, and features were once joined,</li> <li>○ Seafloor structures</li> <li>○ Age patterns in oceanic and continental crust</li> <li>○ Landform patterns that indicate plate motion.</li> </ul> </li> </ul>
2.5	No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"> <li>● Recognize and recall specific vocabulary such as seafloor spreading, continental crust, oceanic crust, fossil, mid-ocean ridge, ocean trench, subduction, and fault.</li> <li>● Recognize that shapes of continents match together.</li> <li>● Identify the ages of rock in different places on the ocean floors.</li> <li>● Describe the Theory of Continental Drift.</li> <li>● Describe the process of seafloor spreading.</li> <li>● Identify the 3 types of plate motion (converging plates, diverging plates, and transforming plates).</li> <li>● Identify landforms that are evidence of past plate motions.</li> </ul>
1.5	Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.
<b>Score 1.0</b>	With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.
0.5	With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.
<b>Score 0.0</b>	Even with help, no demonstration of content, processes and/or skills.



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## Example Proficiency Scale: MS-ESS-2.4 Water Cycle

Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"><li>• Apply the principles of energy and water movement to a novel situation.</li></ul> <p>Examples may include:</p> <ul style="list-style-type: none"><li>– Predict changes to Earth's system if the Sun's energy output increased or decreased dramatically.</li><li>– If any one process were removed, how would the cycle change?</li><li>– Impact of an ice age on the water cycle.</li></ul>
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"><li>• Make a model of the water cycle.</li><li>• Use a model to describe:<ul style="list-style-type: none"><li>○ how water changes as it cycles through Earth's systems, and</li><li>○ how energy (heat) and gravity drive the water cycle.</li></ul></li></ul>
2.5	No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"><li>• Recognize and recall specific vocabulary such as energy, gravity, evaporation, condensation, precipitation, transpiration, infiltration, and runoff.</li><li>• Identify how heat can change the properties of water (gas, liquid, solid).</li><li>• Identify where water is stored.</li><li>• List ways water moves above, on, and through the Earth.</li><li>• Identify how gravity affects matter on Earth.</li></ul>
1.5	Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.
<b>Score 1.0</b>	With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.
0.5	With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.
<b>Score 0.0</b>	Even with help, no demonstration of content, processes and/or skills.



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## Example Proficiency Scale: MS-ESS-2.5 Weather

Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"><li>• Apply principles of air mass interactions to a novel situation.</li></ul> <p>Examples may include:</p> <ul style="list-style-type: none"><li>– Given a set of changing data, predict weather that is about to happen.</li><li>– Identify the best location to land a hot air balloon (low wind).</li></ul>
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"><li>• Identify patterns in the data (i.e., wind direction changes and temperature changes, wind increase followed by rain).</li><li>• Use data to support the claim that when air masses with different characteristics interact, different weather conditions occur.</li></ul>
2.5	No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"><li>• Recognize and recall specific vocabulary such as weather, temperature, air pressure, altitude, humidity, precipitation, wind, air masses, and fronts.</li><li>• Summarize characteristics of the 4 types of air masses (maritime polar, maritime tropical, continental tropical, continental polar).</li><li>• Characteristics of clouds and different forms of precipitation.</li><li>• Identify the role of air pressure in movement of air masses.</li><li>• Describe how collisions of air masses create weather changes (warm, cold, and stationary fronts).</li><li>• Describe a situation that would lead to a severe weather event. (<i>MS-ESS-3.2</i>)</li></ul>
1.5	Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.
<b>Score 1.0</b>	With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.
0.5	With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.
<b>Score 0.0</b>	Even with help, no demonstration of content, processes and/or skills.



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## Example Proficiency Scale: MS-ESS-2.6 Circulation Patterns

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.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught. <ul style="list-style-type: none"> <li>• Apply principles of the global climate system to a novel situation.</li> </ul> Examples may include: <ul style="list-style-type: none"> <li>– Given a different planet, draw and explain where currents would form in the oceans and atmosphere.</li> <li>– Study cause and effect of differences in energy input levels in the global system.</li> <li>– Predict circulation patterns if the planet were spinning the other direction.</li> </ul>
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.
<b>Score 3.0</b>	Target Goal/Learning Intention: <ul style="list-style-type: none"> <li>• Develop a model of the Earth with the relevant components of the climate system including: <ul style="list-style-type: none"> <li>○ latitudinal temperature banding,</li> <li>○ convection cells in the atmosphere,</li> <li>○ prevailing winds,</li> <li>○ surface ocean currents,</li> <li>○ direction of Earth’s rotation, and</li> <li>○ energy input from the sun.</li> </ul> </li> <li>• Use the model to describe relationships among components of the climate system including: <ul style="list-style-type: none"> <li>○ How uneven heating affects the system.</li> <li>○ How currents and winds are influenced by the Coriolis effect.</li> <li>○ How bands of rising and sinking air create wet and dry regions.</li> <li>○ How positioning on the Earth, including proximity to water, can affect the temperature and humidity of regional climate zones.</li> </ul> </li> </ul>
2.5	No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.
<b>Score 2.0</b>	Simpler Goal/Intention: <ul style="list-style-type: none"> <li>• Recognize and recall specific vocabulary such as altitude, jet stream, prevailing winds, latitude, Coriolis effect, air current, ocean current, and climate.</li> <li>• Identify how the directness of sunlight varies based on location on the Earth.</li> <li>• Identify that the temperature of water changes slower than the temperature of air.</li> <li>• Identify how proximity to water affects temperature and humidity of a regional climate.</li> <li>• Describe how fluids move in relation to heat differences.</li> <li>• Summarize convection cell locations in the atmosphere.</li> <li>• Identify that the rotation of the Earth affects circulation patterns.</li> <li>• Identify patterns of major ocean currents and prevailing winds.</li> <li>• Identify factors that cause variability in the global climate system throughout Earth’s history. (MS-ESS-3.5)</li> </ul>
1.5	Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.
<b>Score 1.0</b>	With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.
0.5	With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.
<b>Score 0.0</b>	Even with help, no demonstration of content, processes and/or skills.



## Example Proficiency Scale: MS-ESS-3.1 Distributions of Natural Resources

Construct a scientific explanation based on evidence for how the uneven distribution of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"> <li>● Apply principles of resource distribution to a novel situation.</li> </ul> <p>Examples may include:</p> <ul style="list-style-type: none"> <li>– Predict where resources could be found.</li> <li>– Predict how changing processes could change resource distribution.</li> <li>– Determine if a particular resource is renewable based on formation. (e.g., soil).</li> </ul>
3.5	<p>In addition to score 3.0 performance, in-depth inferences and applications with partial success.</p>
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"> <li>● Construct an explanation:             <ul style="list-style-type: none"> <li>○ of the relationship between the distribution of Earth's resources (mineral, energy, or water) and the geologic processes that form them.</li> <li>○ to address why most resources are limited and nonrenewable.</li> </ul> </li> <li>● Student explanations include:             <ul style="list-style-type: none"> <li>○ evidence from real-world situations, and</li> <li>○ reasoning to connect evidence to the ideas in the explanation.</li> </ul> </li> </ul>
2.5	<p>No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.</p>
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"> <li>● Recognize and recall specific vocabulary such as renewable, nonrenewable, mineral, resource, limiting, and distribution.</li> <li>● Identify types of resources (mineral, energy, and water).</li> <li>● Identify ways that resources form.</li> <li>● Summarize concepts of renewable and nonrenewable resources.</li> <li>● Describe how human populations are affected by the availability of natural resources. (<i>MS-ESS-3.4</i>)</li> </ul>
1.5	<p>Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.</p>
<b>Score 1.0</b>	<p>With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.</p>
0.5	<p>With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.</p>
<b>Score 0.0</b>	<p>Even with help, no demonstration of content, processes and/or skills.</p>



## Example Proficiency Scale: MS-ESS-3.2 Natural Hazards

Analyze and interpret data on natural hazards to forecast future catastrophic events to mitigate their effects.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"><li>• Using patterns in the data, make a detailed forecast for a particular event in a particular area not previously examined by the class.</li></ul> <p>Examples may include:</p> <ul style="list-style-type: none"><li>– Using patterns in the data, make a forecast for the potential of a natural hazard in a specific area in the future including:<ul style="list-style-type: none"><li>◆ Predicted frequency/probability</li><li>◆ Likely severity</li><li>◆ Expected damage</li><li>◆ Predictive events</li></ul></li></ul>
3.5	<p>In addition to score 3.0 performance, in-depth inferences and applications with partial success.</p>
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"><li>• Organize given data in a way that makes patterns easier to identify and interpret.</li><li>• Analyze data to identify and describe patterns including location, frequency, severity, and damage caused by natural hazard events.</li><li>• Use the analyzed data to describe:<ul style="list-style-type: none"><li>○ Areas of least and greatest risk.</li><li>○ The frequency of expected events in various risk areas.</li><li>○ The types of damage expected in various risk areas.</li></ul></li><li>• Interpret the data to identify events or occurrences may occur before a natural hazard event that could be used to predict a natural hazard event.</li></ul>
2.5	<p>No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.</p>
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"><li>• Recognize and recall specific vocabulary such as air pressure, altitude, humidity, air mass, front, thunderstorm, hurricane, and tornado.</li><li>• Describe various natural hazards.</li><li>• Describe the impacts of natural hazards on humans.</li><li>• Identify indicators that a natural hazard may occur.</li><li>• List examples of technologies or strategies that have been developed to mitigate effects of natural hazards.</li><li>• Understand how to interpret a data table.</li></ul>
1.5	<p>Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.</p>
<b>Score 1.0</b>	<p>With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.</p>
0.5	<p>With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.</p>
<b>Score 0.0</b>	<p>Even with help, no demonstration of content, processes and/or skills.</p>



**IDAHO**  
STATE DEPARTMENT OF EDUCATION



**West Ada**  
SCHOOL DISTRICT

## Example Proficiency Scale: MS-ESS-3.3 Human Influence

Apply scientific practices to design a method for monitoring human activity and increasing beneficial human influences on the environment.

### Grade: 6 Earth and Space Science

<b>Score 4.0</b>	<p>In addition to score 3.0 performance, in-depth inferences and applications that go beyond what was taught.</p> <ul style="list-style-type: none"> <li>• Apply principles of human influence on the environment to evaluate feasibility and effectiveness of a method.</li> </ul> <p>Examples may include:</p> <ul style="list-style-type: none"> <li>– Gallery walk</li> <li>– Round table talks</li> <li>– Shark tank</li> <li>– Revise and improve design solution</li> </ul>
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.
<b>Score 3.0</b>	<p>Target Goal/Learning Intention:</p> <ul style="list-style-type: none"> <li>• Analyze a way that humans are influencing the environment (i.e., usage, pollution, and management of water, air, land, and other resources),</li> <li>• Assess methods for improving the influence (e.g., compare/contrast options, cost-benefit analysis),</li> <li>• Design a method (tool or strategy) that could improve human influence.</li> </ul>
2.5	No major errors or omissions regarding 2.0 content, skills and/or processes and partial success of 3.0 content, skills and/or processes.
<b>Score 2.0</b>	<p>Simpler Goal/Intention:</p> <ul style="list-style-type: none"> <li>• Recognize and recall specific vocabulary such as influence, pollution, and natural resource.</li> <li>• Explain causes of human influence on the environment (i.e., usage, pollution, and management of water, air, land, and other resources).</li> <li>• List methods used to measure/monitor human influences.</li> <li>• Describe methods for improving human influence on the environment (e.g., reclamation, conservation, stewardship, etc.).</li> <li>• Identify how human population changes in an area affect the human influence on the environment. (MS-ESS-3.4)</li> </ul>
1.5	Partial demonstration of the 2.0 content, processes and/or skills but major errors or omissions regarding the 3.0 content, processes and/or skills.
<b>Score 1.0</b>	With help, partial demonstration of the 2.0 and 3.0 content, processes and/or skills.
0.5	With help, partial demonstration of the 2.0 content, processes and/or skills but not the 3.0 content, processes and/or skills.
<b>Score 0.0</b>	Even with help, no demonstration of content, processes and/or skills.

