

2-ESS1-1 Earth's Place in the Universe

Students who demonstrate understanding can:

- 2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly.** [Clarification Statement: Examples of events and timescales could include volcanic explosions and earthquakes, which happen quickly and erosion of rocks, which occurs slowly.] [Assessment Boundary: Assessment does not include quantitative measurements of timescales.]

The performance expectation above was developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<p>Constructing Explanations and Designing Solutions</p> <p>Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.</p> <ul style="list-style-type: none"> Make observations from several sources to construct an evidence-based account for natural phenomena. 	<p>ESS1.C: The History of Planet Earth</p> <ul style="list-style-type: none"> Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. 	<p>Stability and Change</p> <ul style="list-style-type: none"> Things may change slowly or rapidly.

Observable features of the student performance by the end of the grade:											
1	Articulating the explanation of phenomena										
	a Students articulate a statement that relates the given phenomenon to a scientific idea, including that Earth events can occur very quickly or very slowly.										
	b Students use evidence and reasoning to construct an evidence-based account of the phenomenon.										
2	Evidence										
	a Students describe* the evidence from observations (firsthand or from media; e.g., books, videos, pictures, historical photos), including: <table border="1" style="width: 100%; margin-left: 20px;"> <tr> <td>i.</td> <td>That some Earth events occur quickly (e.g., the occurrence of flood, severe storm, volcanic eruption, earthquake, landslides, erosion of soil).</td> </tr> <tr> <td>ii.</td> <td>That some Earth events occur slowly.</td> </tr> <tr> <td>iii.</td> <td>Some results of Earth events that occur quickly.</td> </tr> <tr> <td>iv.</td> <td>Some results of Earth events that occur very slowly (e.g., erosion of rocks, weathering of rocks).</td> </tr> <tr> <td>v.</td> <td>The relative amount of time it takes for the given Earth events to occur (e.g., slowly, quickly, hours, days, years).</td> </tr> </table>	i.	That some Earth events occur quickly (e.g., the occurrence of flood, severe storm, volcanic eruption, earthquake, landslides, erosion of soil).	ii.	That some Earth events occur slowly.	iii.	Some results of Earth events that occur quickly.	iv.	Some results of Earth events that occur very slowly (e.g., erosion of rocks, weathering of rocks).	v.	The relative amount of time it takes for the given Earth events to occur (e.g., slowly, quickly, hours, days, years).
i.	That some Earth events occur quickly (e.g., the occurrence of flood, severe storm, volcanic eruption, earthquake, landslides, erosion of soil).										
ii.	That some Earth events occur slowly.										
iii.	Some results of Earth events that occur quickly.										
iv.	Some results of Earth events that occur very slowly (e.g., erosion of rocks, weathering of rocks).										
v.	The relative amount of time it takes for the given Earth events to occur (e.g., slowly, quickly, hours, days, years).										
	b Students make observations using at least three sources										
3	Reasoning										
	a Students use reasoning to logically connect the evidence to construct an evidence-based account. Students describe* their reasoning, including: <table border="1" style="width: 100%; margin-left: 20px;"> <tr> <td>i.</td> <td>In some cases, Earth events and the resulting changes can be directly observed; therefore those events must occur rapidly.</td> </tr> <tr> <td>ii.</td> <td>In other cases, the resulting changes of Earth events can be observed only after long periods of time; therefore these Earth events occur slowly, and change happens over a time period that is much longer than one can observe.</td> </tr> </table>	i.	In some cases, Earth events and the resulting changes can be directly observed; therefore those events must occur rapidly.	ii.	In other cases, the resulting changes of Earth events can be observed only after long periods of time; therefore these Earth events occur slowly, and change happens over a time period that is much longer than one can observe.						
i.	In some cases, Earth events and the resulting changes can be directly observed; therefore those events must occur rapidly.										
ii.	In other cases, the resulting changes of Earth events can be observed only after long periods of time; therefore these Earth events occur slowly, and change happens over a time period that is much longer than one can observe.										