


Short Performance Assessment: **MS-ESS3-2**

Grade Level: **Middle School**

Adapted from [SNAP](#)¹

Title	Natural Disasters Preparedness		
Designed by	John Mark Filcik - Colegio Nueva Granada	Course(s)	Grade 7 NGSS Integrated
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Performance Expectation	<p>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.</p> <p>Clarification Statement: Emphasis is on how some natural hazards, such as volcanic eruptions and severe weather, are preceded by phenomena that allow for reliable predictions, but others, such as earthquakes, occur suddenly and with no notice, and thus are not yet predictable. Examples of natural hazards can be taken from interior processes (such as earthquakes and volcanic eruptions), surface processes (such as mass wasting and tsunamis), or severe weather events (such as hurricanes, tornadoes, and floods). Examples of data can include the locations, magnitudes, and frequencies of the natural hazards. Examples of technologies can be global (such as satellite systems to monitor hurricanes or forest fires) or local (such as building basements in tornado-prone regions or reservoirs to mitigate droughts).</p> <p>Assessment Boundary: none</p>
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Science and Engineering Practice	<p>Analyzing and Interpreting Data</p> <ul style="list-style-type: none">Analyze and interpret data to determine similarities and differences in findings.
Disciplinary Core Ideas	<p>ESS3.B: Natural Hazards</p> <ul style="list-style-type: none">Mapping the history of natural hazards in a region, combined with an understanding of related geologic forces can help forecast the locations and likelihoods of future events.
Crosscutting Concept	<p>Patterns</p> <ul style="list-style-type: none">Graphs, charts, and images can be used to identify patterns in data.

Student Performance	<ol style="list-style-type: none">Organizing dataIdentifying relationshipsInterpreting data
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¹ The Short Performance Assessment (SPA) and the Assessment Rubric adapted from the Stanford NGSS Assessment Project <http://snapgse.stanford.edu/>



Natural Disasters Preparedness Plan

(MS-ESS3-2, SEP-6, and SEP-8)

Instructions: You are the president of a country that is at risk of 2 or more natural disasters. For this project, you will evaluate the natural disaster risk for your country. Based on the natural disaster risk, you will need to create a plan to mitigate the effects to the people of your country.

1. Basic country information (location, population, major cities, major land areas, etc.)
2. Explain the natural disaster risks that your nation faces.
 - What kind of natural disaster? (Tornado, drought, etc.)
 - How severe (loss of life? Damage?)
 - How often (seasonally? All year long? Predictable or unpredictable?)
 - Where (regions)
2. Create a map that includes all of the above information.
3. Research and think creatively to create a disaster plan to mitigate the effects of the natural disasters researched. Include:

Before disaster: What should people do in order to be prepared for the disaster? How will you warn them that the disaster could happen soon? Who will be in charge of this?

During: What should people do during the disaster? Where will people go if their homes are unsafe for the event? How will they get there? How will they be taken care of when they get there? What happens if someone gets hurt/sick/dies?

After: What problems might arise after the disaster? How will medical supplies, food, water, temporary shelter, etc be delivered after the disaster? What if people can't return to their homes immediately?

Individual work: Your final product should be a poster or a brochure preparing your community about this disaster. Make sure to site all the sources that you use in your research. Use at least four sources to earn a 4 on that rubric row. Sample sources are located at the bottom of this page.

Note: If your handwriting is difficult to read, PLEASE either make a brochure on a computer OR print off the text portion of your brochure and paste into the brochure. It is very simple to make a brochure on Microsoft Word. (Just select the "brochure template" when creating a new document. It is also possible to make a brochure on [Google Docs](#).



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ESS3 - 2 and SEP-6	<p>Risk Evaluation present, but inaccurate</p> <p>Disaster Plan present, but ineffective</p>	<p>Risk Evaluation missing many of the required details.</p> <p>Disaster Plan missing many of the required details.</p>	<p>Risk Evaluation: -Correctly describes the kind, frequency, severity, and locations of natural disasters in country (map)</p> <p>Disaster Plan: -For each disaster, completes a plan with actions before, during, and after event. -Actions would help to save lives.</p>	<p>Completes risk evaluation & disaster plan for the disaster(s), all of which are complete and thorough.</p>
SEP - 8 (Obtain, Evaluate, and Communicate Information)	<p>-Information taken directly for websites</p> <p>-Sources not included.</p>	<p>-Only 2 sources used</p>	<p>-Uses at least 3 informational sources (sources included)</p>	<p>-Uses at least 4 sources</p>

Resources: *(Feel free to use these or find your own.)*

General Country Information: [CIA World Factbook](#)

Natural Disasters by Country: [PreventionWeb](#)

Latest Earthquakes: [USGS Earthquake Mapping](#)

Natural Disaster Data: [NOAA](#), [WorldinData](#)

Map of Recent Natural Disasters: [DisasterAlert](#)

Flood News: [FloodList](#)

Preparedness for a Natural Disasters:

- [FEMA](#)
- [California Governor's Office](#)
- [Red Cross](#)
- [ReadyGov](#)



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Assessment Rubric* - Question 1				
	Emerging	Developing	Approaching Proficiency	Excelling
Description of performance				
Sample student responses				

Assessment Rubric* - Question 2				
	Emerging	Developing	Approaching Proficiency	Excelling
Description of performance				
Sample student responses				

Insert additional Assessment Rubrics (if needed) here.



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