

Emerging (1)	Developing (2)	Proficient (3)	Advanced (4)
<p>Team does not identify any volcanoes or are unable to justify their selections. They do not identify data to monitor or devices/techniques to use. They do not accurately report potential pitfalls. Team members do not equally contribute to the plan and presentation.</p>	<p>Team accurately identifies at least 1 volcano and somewhat justifies their selection. They identify at least 1 type of data to monitor and device/technique to use. They report potential pitfalls but do not identify ways to prepare for these. Team members do not equally contribute to the plan and presentation.</p>	<p>Team accurately identifies at least 2 volcanoes and mostly justifies their selections. They identify a few types of data to monitor and devices/techniques to use. They report potential pitfalls and ways to prepare for these. Each team member equally contributes to the plan and presentation.</p>	<p>Team accurately identifies 3 volcanoes that need additional monitoring and justifies their selections. They identify several types of data to monitor and devices/techniques to use. They report potential pitfalls and ways to prepare for these. Each team member equally contributes to the plan and presentation.</p>
<p>Look Fors:</p> <ul style="list-style-type: none"> • Team does not identify any volcanoes or are unable to justify their selections. • Team is unable to identify data needed for monitoring or relevant devices/techniques. • Team does not identify potential pitfalls. • Some team members contribute to the plan more than others. Some team members present more than others. 	<p>Look Fors:</p> <ul style="list-style-type: none"> • Team identifies at least 1 volcano and somewhat justifies their selection with appropriate reasoning. • Team accurately identifies 1 or more types of data that need to be collected. • Team identifies 1 or more relevant devices/techniques for their chosen data. They may or may not identify the locations of the devices. • Team identifies potential pitfalls of monitoring plan, but does not identify ways to prepare for these. • Some team members contribute to the plan more than others. Some team members present more than others. 	<p>Look Fors:</p> <ul style="list-style-type: none"> • Team identifies at least 2 volcanoes and mostly justifies their selections with appropriate reasoning. • Team accurately identifies data that need to be collected. • Team identifies most relevant devices/techniques for their chosen data. They identify the locations of the devices. • Team identifies potential pitfalls of monitoring plan and preparation for those pitfalls. • Each team member equally contributes to the plan and presents to the class. 	<p>Look Fors:</p> <ul style="list-style-type: none"> • Team identifies 3 volcanoes and justifies their selections with appropriate reasoning. • Team accurately identifies data that needs to be collected (e.g., number of earthquakes, GPS movement, gas emissions, temperature, 3-D mapping, rock core samples). • Team identifies all relevant devices/techniques for their chosen data (e.g., seismometer, GPS receiver, COSPEC, thermocouple, thermal infrared radiation sensor, drone). They identify the locations of the devices. • Team identifies potential pitfalls of monitoring plan (e.g., accessing site, safety concerns, financial constraints) and preparation for those pitfalls. • Each team member equally contributes to the plan and presents to the class.

PE	SEP	DCI	CCC	DoK
MS-ESS3-2	SEP-4 Analyzing and Interpreting Data	ESS3.B Natural Hazards	CCC-1 Patterns	4

ILCS: Students must analyze and interpret data to determine which of a set of volcanoes are most important to monitor for future eruptions. They must develop a plan for monitoring, which includes data to be collected and relevant devices or techniques. Students must also identify potential pitfalls, and plan to evade the pitfalls.