

**Reading: Forms of Justification**  
**Volcano 1**

Cara wonders: What is related to the height of ash clouds that are released from volcanic eruptions? Cara did a little research and wrote the following argument. Read Cara's argument closely.

**Cara's Argument:**

(S1) = Sentence 1, (S2) = Sentence 2, (S3) = Sentence 3

*(S1) Volcanoes that have more explosive power usually produce ash clouds that reach higher into the sky. (S2) For instance, the Mount St. Helens Volcano had an explosive power of 5 and the ash cloud was about 22,000 meters high, and the Kilauea Volcano had an explosive power of 0 and its ash cloud is only about 100 meters high. (S3) The Mount St. Helens eruption was more powerful, which made the volcanic ash go much higher into the sky.*

Q1. In which sentence does Cara support her claim?

- Sentence 1 (S1) only
- Sentence 2 (S2) only
- Sentence 1 (S1) and Sentence 2 (S2)
- There is no justification in the argument

Q2. Cara supports her claim with...

- an expert's opinion.
- data from science investigations.
- comparisons to a personal experience.
- science ideas she already learned.

Jose is also in Carrie's class. To help the class write better arguments, Mrs. Warren put Cara and Jose's arguments on the board. She asked the class to compare them:

**Cara's Argument:**

*Volcanoes that have more explosive power usually produce ash clouds that reach higher into the sky. For instance, the Mount St. Helens Volcano had an explosive power of 5 and the ash cloud was about 22,000 meters high, and the Kilauea Volcano had an explosive power of 0 and its ash cloud is only about 100 meters high. The Mount St. Helens eruption was more powerful, which made the volcanic ash go much higher into the sky.*

**Jose's Argument:**

*Volcanoes that have more explosive power usually produce ash clouds that reach higher into the sky. On our field trip to Mount St. Helens, a scientist said that when the Mount St. Helens Volcano erupted in 1980, the eruption was so large that the ash cloud blocked the sun for several days! This only happened because the eruption was so powerful that it was able to push the volcanic gases and dust really high into the sky.*

Q3. Which student, Cara or Jose, better supports her or his argument? Why?  
Please write your answer in the box below.

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