

Relevant-Supporting Evidence when Reading Scientific Arguments

Answer Keys

Question	Assessment			
	Earthquake 1	Earthquake 2	Volcano 1	Volcano 2
1	B	D	C	B
2	A	A	B	B
3	RUBRIC	RUBRIC	RUBRIC	RUBRIC

Rubrics: Constructed Response Items

Reading Relevant-Supporting Evidence

General Rubric

Score	Description
3 Correct Choice; Compare and Critique	Student makes a correct choice and critiques the quality of the evidence by comparing the evidence used in both arguments (relevant-supporting, relevant-contradictory, or irrelevant).
2 Correct Choice; Critique	Student makes a correct choice and critiques the quality of the evidence used in one of the arguments (relevant-supporting, relevant-contradictory, or irrelevant).
1 Correct Choice	Student makes a correct choice and writes that one argument provides stronger evidence. However, the identified reason is wrong . OR Student does not identify any reason even though s/he makes a correct choice
0 No Choice; Incorrect Choice	Student does not make any choice OR Student makes a wrong choice

Specific Rubric

Score	Description	Student Response
3 Correct Choice; Compare and Critique	<p>Student makes a correct choice and critiques the quality of the evidence by comparing the evidence used in both arguments (relevant-supporting, relevant-contradictory, or irrelevant).</p> <p>It is acceptable to point to the data in the argument as opposed to using the terminology. For instance, if the student identifies the relevant-contradictory evidence and says that it is bad, then that is acceptable.</p> <p>If they say, “this argument has evidence” it implies that it is relevant-supporting; however if they use words such as “data”, “supporting details”, “answered the question”, “example” etc., instead of “evidence,” they have to explain/clarify what they mean in order to be given credit for RSE.</p> <p>“About the subject” or “stays on topic” is not enough because it is not necessarily supporting (although relevant).</p> <p>“Better proof” without reason is not sufficient to imply relevant-supporting.</p>	<p>RE1AT8S10 Ben's argument was by far much better than Anna's. Ben's argument stated the explosive power and height at the ash cloud while supporting the claim. Anna's argument did none of that. Also, Anna's argument seemed to travel to a whole different topic. She did explain the power of Mt. Vesuvius but there was no definitive evidence that the higher the power, the higher the ash cloud. It got to a point where she was talking about history not science. Therefore, Ben's argument was the best. [Student identifies the RS variables in Ben's argument and identifies Anna's evidence as irrelevant].</p> <p>RE1BT18S12 Terrance because Dina's argument talked about a time when there were more than usual earthquakes that release that many tons when he is trying to say that there are less earthquakes that release that much energy. In Terrance's argument he compares how many earthquakes in the year that are bigger and smaller to show there are way more smaller earthquakes than there are big. [Student says Tina's evidence is RC, and Terrance's is RS].</p> <p>RE1CT18S8 Shawn better supports his argument. He uses evidence to support the claim. Alison however, used evidence that did not support the claim. She said cool magma can be thin and runny, but it's the complete opposite of the claim. Shawn sticks to the claim and uses excellent statistics. [Student identifies that Shawn's argument had RSE and Alison's was RCE].</p> <p>RE2BT9 Sarah better supports her argument because she uses evidence to support her argument and she explains how earthquakes happen and why longer earthquakes are more destructive. Teddy's argument is poor because has given evidence that doesn't support his claim, but goes against it. He has also included an explanation of earthquakes, but he uses it in an incorrect way. [Student identifies that Sarah's had RSE and Teddy's was RCE]</p> <p>Terrance's argument was better because it talked about multiple years instead of just 2011, like Dina. Plus, how Dina supported his argument wasn't very good because he said that usually there are only 1319 earthquakes that release that much energy, instead of 2276.</p> <p>RE1AT18S7 I feel Ben answered the question better. He answered the question and gave supporting details. June though stated the question but didn't answer it well enough and I felt she got a little off topic by going into too much detail about the remains of Pompeii. Ben showed differences between explosive power and how high the two volcanoes went while June except for the first sentence didn't mention explosive power.</p>

2
Correct
Choice;
Critique

Student makes a correct choice and critiques the quality of the evidence used in one of the arguments (relevant-supporting, relevant-contradictory, or irrelevant).

RE1AT18S13 *Ben supports his argument better. He does because Anna went off-topic by talking about Pompeii's. [Doesn't say why Ben's is better; only that Anna's was irrelevant].*

RE1AT18S2 *Ben's argument supports his argument because he states what he needs. Ben states the power of the volcano, then says how high the ash went. It shows what Ben claims better than Anna's. [Only states the RS variables in Ben's argument; doesn't explain what was bad about Anna's evidence].*

RE1AT18S2 *Terrance supports her argument better because she state's different earthquakes. She say that earthquakes with less energy happen more often than earthquakes with more energy. She shows all the evidence she needs. [States the RS variables in Terrance's argument; Doesn't mention why Dina's evidence is bad].*

RE1AT18S15 *Shawn's argument is better. He has everything you need to make a great argument. He has good evidence, data, and it all ties in to the question. Alison does that, but not as thoroughly as Shawn. [Student identifies that Shawn's argument as good evidence and because it is evidence it is RS, but they are wrong about Alison's argument].*

RE2BT9S8 *Sarah's argument is better than Teddy's because he addresses the question but fails to support the claim. For instance, in sentence 2 of Teddy's paragraph he failed to support the claim. [Student identifies the Sarah's is better and says it is because Teddy's evidence is non-supporting; does not critique Sarah's evidence.]*

It is acceptable to point to the data in the argument as opposed to using the terminology. For instance, if the student identifies the relevant-contradictory evidence and says that it is bad, then that is acceptable.

Terrance's argument was better because it talked about multiple years instead of just 2011, like Winston. Plus, how Dina supported his argument wasn't very good because he said that usually there are only 1319 earthquakes that release that much energy, instead of 2276.

If they say. “this argument has evidence” it implies that it is relevant-supporting; however if they use words such as “data”, “supporting details”, “answered the question”, “example” etc., instead of “evidence,” they have to explain/clarify what they mean in order to be given credit for RSE.

“About the subject” or “stays on topic” is not enough because it is not necessarily supporting (although relevant).

“Better proof” without reason is not sufficient to imply relevant-supporting.

		RE1AT18S5 <i>I think Ben's argument was better. Ben explained more facts about the topic. Anna just gave an example; she needed facts like Ben had. Ben had more facts about volcanoes. That is why I think Ben had the better argument. [Does not clearly define Ben's as RSE or Anna's as irrelevant].</i>
1 Correct Choice	Student makes a correct choice and writes that one argument provides stronger evidence. However, the identified reason is wrong .	RE1BTS15 <i>I think Terrance's argument better supports his argument because he explain what he was stating thoroughly. He told us that if "less earthquakes happen when lots of energy is released". He backed up his answer with details that support what he was thinking. I also feel that his writing was organized and was on topic the whole time so the teacher or reader/audience could understand what point he was making. Terrance said that there are many earthquakes that don't release a lot of energy like the ones the don't happen often. [Correct choice, but the reason is not clear enough to count].</i>
	Student does not identify any reason even though s/he makes a correct choice	RE1AT18S5 <i>I think Shawn's argument was better because there were facts stated. She gave 1 example but didn't go on and on about it! Shawn got right to the point with good facts. [Correct choice, but the reason is not clear enough to count].</i>
		RE1BT18S4 <i>Shawn's argument was better b/c Angie put information that isn't current. [Correct choice, but the reason is not clear enough to count].</i>
		RE1CT18S10 <i>Shawn had a better argument. He supports his argument by stating examples. He also states the question in the answer. [Correct choice, but the reason is not clear enough to count].</i>
		RE2AT9S3 <i>Sarah's argument because she gives two examples of earthquakes to compare [More does not mean better; the critique is wrong.]</i>
0 No Choice; Incorrect Choice	Student does not make any choice OR Student makes a wrong choice	RE1BT18S3 <i>I think Junes argument is better because she uses a known example like Pompeii which gives you a better understanding about what she is talking about. [Wrong Choice].</i>
		RE1AT18S5 <i>I think that Dina's argument was better. I think Dina's was better than Terrance's argument because Dina has the number of earthquakes in one year and it was well explained. On the other hand Terrance had facts but he didn't explain it as much as Winston did. [Wrong Choice].</i>
		<i>I think Alison's argument was better because it has details. It had information that could help me understand what I was reading. [Wrong Choice].</i>
		RE1AT18S3 <i>I think Teddy's is better because she has more evidence to support the argument. [Wrong Choice].</i>
