Southern New Hampshire University

SCI 100 Module Six Short Answer Guidelines and Rubric
Why Ask Why?

Prompt: Stephen Hawking stated in *A Brief History of Time* (1988) that "a good theory is characterized by the fact that it makes a number of predictions that could in principle be disproved or falsified by observation." In other words, to develop a good theory, you need to be able to test your predictions. Whether your prediction was correct or not, your results will likely lead to new questions.

To get started on this assignment, first review these resources:

- 10 Questions for Stephen Hawking (video interview) (4:47)
- Stephen Hawking (1942–2018): Toward a Complete Understanding of the Universe
- The 20 Big Questions in Science

Then, answer the following questions:

1. How has Hawking's research contributed to the field of natural science?

2. What do you think drives a scientist like Stephen Hawking to ask "Why?"

3. How does science build on itself? In other words, how are scientists influenced by the work of those who came before them? Provide an example of a scientific discovery that built on the work of another scientist.

Your responses on this assignment will directly support your work on Project 3.

Rubric

Guidelines for Submission: Submit your responses in a Microsoft Word document. The length of your responses to each question may vary. A good response will be about 1–2 paragraphs in total.

Critical Elements	Proficient (100%)	Needs Improvement (75%)	Not Evident (0%)	Value
Contribution	Explains how Hawking's research has contributed to the field of natural science	Explains how Hawking's research has contributed to the field of natural science, but explanation is lacking detail	Doesn't explain how Hawking's research has contributed to the field of natural science	30
Why Ask Why	Discusses what drives a scientist like Stephen Hawking to ask why and uses evidence to support opinion	Discusses what drives a scientist like Stephen Hawking to ask why, but explanation is lacking detail or support	Doesn't discuss what drives a scientist like Stephen Hawking to ask why	30

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Critical Elements	Proficient (100%)	Needs Improvement (75%)	Not Evident (0%)	Value
Influence	Explains how science builds on itself over time and includes a relevant example of a scientific discovery that built on the work of another scientist	Explains how science builds on itself over time but response lacks clarity or is missing a relevant example	Doesn't explain how science builds on itself over time	30
Communicates Clearly	Clearly communicates key ideas and thoughts in a short-answer response	Response needs clarification in order to support understanding of key ideas and thoughts	Key ideas or thoughts are not understandable	10
			Total	**100%**