



SCI 100 Project 3 Guidelines and Rubric

Overview

There are three projects for this course. In Project 1, you began your exploration of a natural science topic by selecting a news story and completing a topic exploration graphic organizer. In Project 2, you continued your analysis of the news story and the natural science topic and ultimately developed a question that, as a natural scientist, you would like to study. In Project 3, you will develop a presentation that discusses why your question is important and the value of studying the natural sciences.

Project 3 will assess the following course outcomes:

- Investigate major developments in the natural sciences for informing critical questions that drive scientific inquiry
- Articulate the value of the natural sciences for their impact on contemporary issues

Prompt

Using the question that you posed in Project 2, explain why the answer is important for understanding yourself, other people, and the world around you. In addition, you will discuss how the natural sciences have developed to help us answer these important questions. Your presentation should include speaker notes so that your instructor knows what you would be saying if you were actually giving the presentation. The critical elements of this project will be evaluated by the information in your presentation. Be sure your actual question is apparent in the presentation.

Specifically, the following **critical elements** must be addressed:

- I. Why is the **question** you identified important to you as a member of society?
- II. Explain how finding the **answer** to your question might impact others around you. For example, who might be most interested in the answer to your question?
- III. Explain why **studying the natural sciences** is valuable. In other words, what is the benefit of studying topics in the natural sciences?
- IV. Describe the **major developments in the natural sciences** related to your topic. Use course resources to back up your discussion.



- V. Detail the **major developments in scientific thinking** that support the study and advancement of the natural sciences as necessary and valuable. Use course resources to back up your discussion.
- VI. How do these developments in the natural sciences and scientific thinking **inform questions** about the topic in your news story? In other words, what is the relationship between major developments in the natural sciences and the questions that natural scientists are interested in?
- VII. Discuss the **obligation** that you have as a citizen of your society to understand the science behind issues that impact you every day. For instance, how can being a more scientifically informed member of society benefit you and your community?

Review the Presentation Supporting Resources document to help you create your presentation.

Supporting Work and Resources

Throughout Modules Five through Eight, there are several opportunities to work directly on different elements of this project:

- 1. In Module Five, you will
 - a. Consider the benefits and value of studying the natural sciences.
 - b. Identify the major developments in the natural sciences that are related to your topic.
- 2. In Module Six, you will
 - a. Think about how developments in scientific thinking impact the way science is carried out.
 - b. Reflect upon how developments in the sciences influence the types of questions that researchers ask.
- 3. In Module Seven, you will
 - a. Question the importance of your selected topic and research question to you and the world around you.
 - b. Consider the benefits of understanding the science behind issues that you see in the news, and you will consider how it might impact those around you. You will also practice creating a presentation that addresses these issues.
 - c. Consider the ethical concerns of your selected topic.
- 4. In Module Eight, you will
 - a. Again consider the importance of being an informed citizen, and you will reflect on the value of understanding and studying the natural sciences.



Project 3 Rubric

Guidelines for Submission: Your presentation should use Prezi, PowerPoint, or a comparable presentation tool and include speaker notes. Ensure that your presentation includes the question you posed at the end of your question development worksheet. **Note: If using Prezi, be sure to include a Word document with notes. If using PowerPoint, be sure to include speaker notes.**

Critical Elements	Exemplary (100%)	Proficient (85%)	Needs Improvement (55%)	Not Evident (0%)	Value
Question	Meets “Proficient” criteria, and explanation demonstrates mature awareness of connections between the question and being a member of society	Explains why question identified is important to a member of society	Explains why question identified is important to a member of society, but with gaps in clarity or detail	Does not explain why question is important to a member of society	11.75
Answer	Meets “Proficient” criteria, and explanation demonstrates mature awareness of connections between answer to the question and impact on others	Explains how finding answer to question might impact others	Explains how finding answer to question might impact others, but with gaps in detail or clarity	Does not explain how finding answer to question might impact others	11.75
Studying the Natural Sciences	Meets “Proficient” criteria, and explanation demonstrates insight into value of natural sciences	Explains why studying the natural sciences is valuable	Explains why studying the natural sciences is valuable, but with gaps in detail or clarity	Does not explain why studying the natural sciences is valuable	11.75
Major Developments in the Natural Sciences	Meets “Proficient” criteria, and description demonstrates insight into major developments in the natural sciences	Describes major developments in the natural sciences related to topic, supporting response with course resources	Describes major developments in the natural sciences related to topic, but with gaps in support, detail, or accuracy	Does not describe major developments in the natural sciences related to topic	16
Major Developments in Scientific Thinking	Meets “Proficient” criteria, and response demonstrates insight into major developments in scientific thinking	Details major developments in scientific thinking that support the study and advancement of the natural sciences as necessary and valuable, supporting response with course resources	Details major developments in scientific thinking that support the study and advancement of the natural sciences as necessary and valuable, but with gaps in support, detail, or accuracy	Does not detail major developments in scientific thinking that support the study and advancement of the natural sciences as necessary and valuable	16

Critical Elements	Exemplary (100%)	Proficient (85%)	Needs Improvement (55%)	Not Evident (0%)	Value
Inform Questions	Meets "Proficient" criteria, and explanation demonstrates insight into relationship between major developments in science and questions that drive scientific inquiry	Explains how developments in natural sciences and scientific thinking inform questions about topic in news story	Explains how developments in natural sciences and scientific thinking inform questions about topic in news story, but with gaps in detail or clarity	Does not explain how developments in natural sciences and scientific thinking inform questions about topic in news story	16
Obligation	Meets "Proficient" criteria, and response demonstrates insight into relationship between citizenship obligations and impactful issues	Discusses obligation as a citizen of society to understand science behind impactful issues	Discusses obligation as a citizen of society to understand science behind impactful issues, but with gaps in detail or clarity	Does not discuss obligation as a citizen of society to understand science behind impactful issues	11.75
Articulation of Response	Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy to read format	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas	5
Total					100%