

## SCI 200 Project Part One: First Draft Guidelines and Rubric

**Overview:** You have identified an issue in the natural sciences and developed an initial research question. In Modules Three and Four, you will practice evaluating scientific sources and then identify and describe sources related to your topic. As you investigate your topic through these sources, you will revisit your research question and make adjustments.

**Prompt:** In this first draft, you will identify appropriate resources related to your issue and begin to analyze them and compile your reference list. You will complete the first two critical elements (introduction and body) of Project Part One, and you will complete a draft of the conclusion in Modules Five and Six. You will also begin building critical element IV, the reference list, in this draft.

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

- I. **Introduction:** In this section, you will discuss your natural science issue and select resources that you can use to research the issue. This will lead you to the development of a research question related to your issue. Specifically, you should:
  - a. Describe the **issue** in the natural sciences that you have selected to investigate. Why is this issue significant? (You identified this issue in Module One, but how would you revise this piece now that you have received instructor feedback and investigated your sources?)
  - b. Describe at least three **science resources** that you could use to investigate the issue you selected. Your sources must be relevant to your issue and must be of an academic nature appropriate for the issue. In your description, consider questions such as: What are the similarities and differences in the content of your sources? What makes them appropriate and relevant for investigating your issue? What was your thought process when you were searching for sources? How did you make choices?
  - c. Based on your review of science resources, develop a **specific question** related to the issue you selected. In other words, what would you like to know more about?
- II. **Body:** In this section, you will use the natural science resources that you selected to investigate your question, focusing on an appropriate audience and the scientific principles related to the issue. Make sure to cite your sources. Based on your research:
  - a. Identify an **audience** that would be interested in your issue and the question you developed. For example, who would benefit most from hearing your message, or who could best help in addressing the issue?
  - b. Describe how and why you can tailor your **message** to your audience, providing specific examples. For example, will your audience understand scientific terminology and principles, or will you need to explain them? How will you communicate effectively with your audience?
  - c. **Identify** the natural science **principle(s)** that apply to your question and issue. For example, if your issue is global climate change, the principle you might identify is that the sun is the primary source of energy for Earth's climate system.
  - d. **Explain** how the **principle(s)** you identified apply to your issue and question. In other words, how are the natural science principle(s) you identified relevant to your question and issue?
- IV. Provide a **reference list** that includes all of the science resources you used to investigate your issue and question so far. Ensure that your list is formatted according to current APA guidelines (or another format, with instructor permission).

## Rubric

**Guidelines for Submission:** The first draft of your planning document should be 2–4 pages, double spaced, with 12-point Times New Roman font and one-inch margins. You should use current APA guidelines (or another format approved by your instructor) for your citations and reference list.

| Critical Elements                      | Proficient (100%)                                                                                                                                             | Needs Improvement (75%)                                                                                                                                                              | Not Evident (0%)                                                                                                                    | Value       |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Introduction: Issue</b>             | Describes selected issue in natural sciences and its significance                                                                                             | Describes selected issue in natural sciences and its significance but with gaps in detail or clarity                                                                                 | Does not describe selected issue in natural sciences and its significance                                                           | 5           |
| <b>Introduction: Science Resources</b> | Describes at least three relevant and appropriate science resources that could be used to investigate selected issue                                          | Describes at least three science resources that could be used to investigate selected issue but with gaps in appropriateness, relevance, or detail or is missing one or more sources | Does not describe science resources that could be used to investigate selected issue                                                | 15          |
| <b>Introduction: Specific Question</b> | Develops specific question related to selected issue based on review of science resources                                                                     | Develops specific question related to selected issue, but question is not based on review of science resources                                                                       | Does not develop specific question related to selected issue                                                                        | 5           |
| <b>Body: Audience</b>                  | Identifies an audience that would be interested in issue and question, citing source(s)                                                                       | Identifies an audience, but audience is not appropriate for issue and question, or there are gaps in citation                                                                        | Does not identify an audience                                                                                                       | 15          |
| <b>Body: Message</b>                   | Describes how and why message can be tailored to audience, providing specific examples and citing source(s)                                                   | Describes how and why message can be tailored to audience but with gaps in examples or citation                                                                                      | Does not describe how and why message can be tailored to audience                                                                   | 15          |
| <b>Body: Identify Principle(s)</b>     | Identifies natural science principle(s) that apply to issue and question, citing source(s)                                                                    | Identifies natural science principle(s) that apply to issue and question but with gaps in accuracy or citation                                                                       | Does not identify natural science principle(s) that apply to issue and question                                                     | 15          |
| <b>Body: Explain Principle(s)</b>      | Explains how identified principle(s) apply to issue and question, citing source(s)                                                                            | Explains how identified principle(s) apply to issue and question but with gaps in detail, clarity, or citation                                                                       | Does not explain how identified principle(s) apply to issue and question                                                            | 15          |
| <b>Reference List</b>                  | Provides reference list that includes all science resources used to investigate issue and question, and list is formatted according to current APA guidelines | Provides reference list that includes all science resources used to investigate issue and question, but list has gaps in adherence to current APA formatting guidelines              | Does not provide reference list that includes all science resources used to investigate issue and question                          | 10          |
| <b>Articulation of Response</b>        | 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           |
| <b>Total</b>                           |                                                                                                                                                               |                                                                                                                                                                                      |                                                                                                                                     | <b>100%</b> |