

MISCONCEPTION ABOUT THE METHODS OF SCIENTIFIC INVESTIGATIONS (NATURE OF SCIENCE) 24

Many people think that there is one method to conduct scientific research. In other words, some people think that the process for doing all scientific research is the same and that there is a specific ordered set of steps (or a method) that all scientists follow during a scientific investigation.

Write a one- to two-page refutational essay to convince someone who thinks that there is only one scientific method that this idea is a misconception. As you write your paper, remember to

- clearly state the misconception that you are trying to refute;
- include several specific facts, details, reasons, and/or examples that show or demonstrate why the misconception is inaccurate;
- explain how scientists conduct many different types of investigations and scientists engage in many different types of activities and usually do not engage in sequence of activities in all the investigations that they plan and carry out;
- include several specific facts, details, reasons, and/or examples that show or demonstrate how there are many different methods of science;
- present your ideas in a clear and logical order, including an introduction, body, and conclusion;
- use a variety of words and well-constructed sentences to create tone and voice;
- include at least five references in your essay, and be sure to cite your references correctly; and
- correct errors in capitalization, punctuation, sentence structure, spelling, and grammar.

You will have _____ to research this topic, and then plan, write, edit, and produce a final product. You must use at least five different reference materials (e.g., your textbook, online resources, and so on) during this process. Be sure to cite all your references in the text of your essay and include a reference section.

You must complete your **research** by _____.

Your **prewrite** (an outline, a concept map, etc.) is due on _____.

Your **initial draft** of your essay is due on _____.

Your **final draft** of your essay is due on _____.