
Mini-Report 3 – Introduction

The “introduction” section of an experiment report is essentially the first part of the formal written report. This section must convey two key pieces of information: 1) the background information that is necessary to place the experiment in context and 2) the purpose of this experiment.

Scientists rarely invent new areas of science. Instead, each scientific experiment uses information from previous experiments to place each new experiment in context. The key to determining what information must be included in the background portion of the introduction is to ask yourself: “What information did I need to know to understand this experiment?” You must then research all of this information and write a cohesive introduction describing the theories, laws, concepts, and equations that allowed your experiment to be conducted. Since all of this information was discovered in previous experiments, it is required that you reference the sources of information that you used to prepare your introduction. In the “real world,” a scientist will only use primary sources when doing this research – that is, they will only reference the original experiments conducted and the original authors that conducted each experiment. For this class, however, you are allowed to reference secondary (or tertiary) sources, such as your textbook. These non-primary sources were written by authors who examined primary source material and then summarized the key findings in an easy-to-use format. The most important rules to remember, however, when preparing your background are: 1) if a law, theory, equation, or concept was needed to complete the experiment, then you need to describe that law, theory, equation, or concept in the background section of your introduction and 2) if you get information from ANYWHERE (lecture, lab manual, textbook, etc.), you need to reference the source.

After you have written your background section, the introduction must conclude with a statement of purpose. The statement of purpose explains what the purpose of YOUR experiment is. In other words, how will your experiment use the material that you wrote about in your background in a new and interesting way? The statement of purpose leads directly into the method / materials section of your report, so it serves as a transition from background material (other people’s experiments) to your experiment.

The introduction section of a report is a bit challenging to write, because it requires the author to research the background material of the experiment. Because of this fact, authors typically write the background section of a report after they have completed the other parts of the report. That way, they will know which background material was necessary to understand their experiment and can focus their research on this material.

Instructions:

Write an introduction section for the lab that you just completed. It must be double spaced, 12 point font, and should have your name on it. The references that you use to write your introduction section should be cited in a separate “references” section.