

6.1: THE BASICS

Different lab courses¹⁴ will have different report requirements, but the organic chemistry reports at PSU are based on the framework followed in most scientific research articles. These are typically divided into three parts:

1. **The why:** gives the information necessary to contextualize the experiment, states the goal of the experiment.
2. **The how:** gives information about how the experiment was performed
3. **The what:** provides relevant data and interpretation as it relates the goal of the experiment

Below is a table showing the different pieces that need to be included in your lab reports.

Table 1. Key goals of a report

#	Section	Name	Key goals of section
1	Why	Title	A short title of the experiment.
2	Why	Purpose of	The main goal and purpose of the experiment.
3	How	Reaction scheme	The reaction scheme for the transformation attempted.
4	How	Procedure	A description of the procedure is provided so that a professional can reproduce your experiment.
5	What	Data	The key data obtained are presented, usually in tabulated form.
6	What	Discussion	The results and findings from #5 are discussed, and the outcome of the experiment as it pertains to #2 is explained
7	What	Conclusion	A conclusion is stated, based on the results.
8	What	References	Relevant references are provided.

As the table shows, each section serves a distinct purpose and function. We will now look at each section in detail, and focus on the general goals of each, followed by things to watch out for, and common mistakes. The section numbers #1-8 follow the sections used in the report forms at PSU.

¹⁴ Different scientific disciplines, and even sub-disciplines, have different reporting requirements, different ways of presenting information, and different ways of using technical language.

This page titled [6.1: THE BASICS](#) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by [Alexander Sandtorv \(PDX Open publishing initiative\)](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.