

When conducting scientific experiments, scientists use the scientific method to collect data and analyze it in the hopes of supporting or contradicting a hypothesis. The scientific method involves many steps that may happen in different orders depending on the problem being addressed. However, all forms of the scientific method involve the following key steps: making predictions, collecting and analyzing data, and drawing conclusions about the predictions based on the data (see pages 532-535 in your text for more information).

The steps below show how each phase of the scientific method should be detailed in a Lab Report.

Lab Report Section	Scientific Method Step	Lab Report Contents
1. Purpose	Ask a question	Convert your question to a purpose statement Try to start with “to determine...”
2. Hypothesis	Form a hypothesis	The hypothesis is a statement about an idea that you can test. Use an “If ... then ...” format to state your hypothesis. Example : If temperature affects the growth of crystals, then at higher temperatures crystals will form faster.
3. Materials	Design an experiment	This is a bulleted list of all materials (including lab equipment) required to perform the experiment.
4. Procedure	Design an experiment	This is a numbered list of the steps followed to perform the experiment.
5. Observations	Collect Data	This is a record of all qualitative and quantitative data collected during the experiment. A chart or graph is often used to show trends and relationships in the data.
6. Discussion	Analyze data	This is the section where the data is analyzed and discussed. This section should be in proper paragraph format. Answer any questions that are asked in the lab description.
7. Conclusion	Draw conclusions and communicate results	State your findings clearly relating back to the original purpose and hypothesis. Sources of error (a minimum of 2) should be highlighted in this section.

All lab reports should be typed by the student. Student name, date, section number and partner names should appear on the first page on the top right corner. When required, graphs can be done using graphing tools such as Google Sheets or excel or the graphs can be done neatly on graph paper.

All labs will be submitted electronically through Turnitin.com **and** printed out and handed in on paper.