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## Mini-Report 4 – Method / Materials

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The “method/materials” section of an experiment report is the section in which a scientist communicates the specific steps that were done in order to perform the experiment described in the report. This section must be clearly written so that another scientist would be able to duplicate the experiment exactly. This section may allude to data collected during the experiment, but the data is not typically given explicitly and no calculations are shown or performed in this section of the report. The data is not analyzed in any way within this section and conclusions are not drawn from the results of the experiment within this section.

The method/materials section serves as a record of the experiment that was performed. It is NOT an instruction manual or recipe for future students. Therefore, if your lab manual says “Add about 0.3 g of salt”, you would write “0.321 g of salt was added” in your report. The methods/materials section is typically written in the third-person and NOT in the first person (*incorrect*: “I added 0.321 g of salt”) or in the second person (*incorrect*: “Add 0.321 g of salt”). Also included in this section are the observations made by the experimenter as the experiment was performed. If the color of something changed or if something started to boil when you heated it, then this should certainly be mentioned in the procedure. *Example*: “The solution was brought to a boil and the blue precipitate changed to a dark black color over a period of six minutes.”

In order to ensure that future scientists who are following your procedure are not injured, it is imperative that you include any safety information that scientists should be aware of. If something is dangerous or toxic, this should be mentioned explicitly in your procedure, and your procedure should explain how to avoid any potential problems or accidents associated with this danger.

Your procedure should be written using language that could be understood by a future student who has taken as much chemistry as you have, but has never done or seen this experiment. That means that it is not necessary to explain HOW to weigh something or to use a thermometer, but it may be necessary to explain specific details about THIS experiment, particularly if you had never done an experiment before that was comparable to this one.

***Instructions:***

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