INTRODUCTION TO THE SCIENTIFIC METHOD
WATER EXPERIMENT

INTRODUCTION

Create the introduction section of your research paper.

1. A general presentation of the research problem.
2. Lay out exactly what you are trying to achieve with this particular research project.
3. State your own position.

LITERATURE REVIEW

Using any available method to conduct research, complete a "**Literature Review**" for the following items- plastic cup, paper cup, Styrofoam cup, properties of water, the metric scale for Celsius and Grams.

THE METHOD

Lab Procedure

ICE Experiment

Materials Needed

ICE, Thermometer, plastic cup, paper cup, Styrofoam cup, water, measuring cup (milliliters), data collection sheets, Lab Report, paper, pencils, scale (grams), timer

Procedure

Step 1- Measure 100ml of water into each of the cups, i.e. plastic, paper, and Styrofoam

Step 2- Take an initial ambient temperature for each of the cups and record the water temperature in each of the cups. Record the results on the data collection sheet. When recording the water temperature, aim the laser at the edge of the cup just below the water line.

Step 3- Measure 23-26 grams of ice into each of the three cups. Attempt to add the ice to each of the cups (containing 100ml of H_2O each) at approximately the same time.

Step 4- Set the timer to 5 minutes and monitor/observe the ice in each of the cups. Record observations on the Lab Report and at the end of 5 minutes; record the temperature of the water. When recording the water temperature, aim the laser at the edge of the cup just below the water line. Do not point the laser directly onto the ice when recording the temperature. Record the results on the data collection sheet.

Step 5- Repeat "Step 4" until the water returns to the ambient room temperature.

RESULTS

Record these data to the "**Experimental Results**" section of your research paper. Remember to provide only a general a general overview of the data and then expand upon it in the discussion. It is important to keep your own opinions and interpretations out of the results section, saving that for the discussion.

DISCUSSION

This is where you elaborate upon your findings, and explain what you found, adding your own personal interpretations.

Ideally, you should link the discussion back to the introduction, addressing each initial point individually.

It is important to try to make sure that every piece of information in your discussion is directly related to the thesis statement, or you risk clouding your findings. You can expand upon the topic in the conclusion.

CONCLUSION

Interpret the Data Collected and complete the "**CONCLUSION**" section of your research paper.

The conclusion is where you build upon your discussion and try to refer your findings to other research and to the world at large.

In a short research paper, it may be a paragraph or two, or practically non-existent.
In a dissertation, it may well be the most important part of the entire paper - not only does it describe the results and discussion in detail, it emphasizes the importance of the results in the field, and ties it in with the previous research.

Some research papers require a recommendations section, postulating that further directions of the research, as well as highlighting how any flaws affected the results. In this case, you should suggest any improvements that could be made to the research design.

REFERENCES

No paper is complete without a reference list, documenting all of the sources that you used for your research. This should be laid out according to APA, MLA or other specified format, allowing any interested researcher to follow up on the research.