# AN EXPLANATION OF EXPERIMENTAL FORMAT

**HYPOTHESIS**: A possible explanation of an observation which can be tested.

**AIM:** A precise and clear statement about the reason for your experiment.

The object of an experiment.

What you were attempting to do.

What problem you were attempting to solve.

What hypothesis you were testing.

**APPARATUS:**  A list of all the scientific equipment used in conducting an

experiment

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eg. measuring instruments

flasks

test tubes

crucibles

**MATERIALS:** A list of substances - exclusive of apparatus and reagents - that are

used to conduct an investigation/experiment.

eg. storage organs

absorbent materials

**REAGENTS:** A list of all aqueous chemical solutions used in conducting an

experiment.

eg. all acids and bases

**DIAGRAM:** A simple two- dimensional illustration of the apparatus layout as

used to conduct the experiment. It is not a picture.

## METHOD/

**PROCEDURE:** A brief description of what you did.

ie. How you used the apparatus, materials and reagents.

It should be concise and precise. It should be reported in the passive

voice (eg. The student was made to sit quietly for 2 minutes), and in

point form, in the order in which each step was carried

out.

### **OBSERVATIONS/** These may be qualitative or quantitative. They should be

### **RESULTS** presented clearly and precisely in appropriate forms such as

### graphs, tables, diagrams and prose. Averages (ie. means)

### should be calculated from repeated measurements.

### **CALCULATIONS:** Relevant calculations made from the results you obtained.

### Balanced ionic and molecular equations can be noted here.

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**ANALYSIS OF DATA/** This should include the explanation of results obtained **ANSWERS TO QUESTIONS/** based on background information..

**INTERPRETATION** Here, data is summarized.

Patterns, trends and relationships are accurately identified

and inferences and predictions are made, all based on the

results.

In addition, data is evaluated and sources of error are

stated.

Existing concepts are used to explain and interpret new

observations.

Questions are answered, based on observations, results and

predictions.

This section gives meaning to the results.

**CONCLUSION** This is a brief closing statement about the aim, in light of

the results.

No sweeping generalizations should be made.