



GRACE LUTHERAN COLLEGE

Science Department Junior Science Practical Write-Up

Do not copy any other person's words – your peer's, parent's or from any other sources including text material, web sites, etc. The report, except for the data table, will be different from all others and written in your **own words**. Members of each team use the **same results**, but must write-up their own laboratory report **independently** and not share any other information. If any of the report contains such plagiarism either part of, or possibly the whole report will not be given any credit (no marks given).

Presentation of the laboratory report must conform to the following:

- **Word processed** or **very neatly handwritten**
- A4 white paper
- Name on each page of report
- **Staple the marking** scheme (criteria sheet) to the **front** of you report
- Avoid the use of **slang** (colloquial expressions) eg "to see" and write in the **third person** (avoid the use of personal works like I, We, My and use words like It. Your teacher will explain this.)
- Carefully **proof read** your report.

Topics to include below should be in the same order and bolded and underlined throughout the report:

Title: A short but interesting title which gives the reader an idea of the topic being investigated.

Introduction: The reader needs to be presented with background information of the scientific principles on which the experiment is based. The last sentence of the introduction should be the **aim** (what is the purpose of the experiment or what are you trying to discover or prove by doing the experiment. e.g. To determine or to compare) of the experiment and the **hypothesis** where appropriate.

Procedure: A comprehensive set of instructions which were used to achieve the aims of the experiment. It should be written in third person, past tense e.g. the zinc granules were placed in a beaker with 30 mL of acid. NB. Carefully consider every aspect of your procedure to ensure that you **control all variables** and conduct a "**fair test**" providing accurate, reliable and honest results.

Safety: Make a list of any chemical, apparatus or procedures that could become a hazard in the laboratory. Include the first aid procedure in case of accidents for each hazard identified.

Results: Results are data or information collected during the course of the experiment. The results should be presented in appropriate form – summarized, tabulated or graphed. Use graphs where possible to show relationships. Graphs should have a title, axes labeled and scaled, points well spread out and a smooth curve or line of best fit marked. Use a maximum of 100 words to **describe** the results you obtained in detailed sentences. Do not include any explanations.

Discussion: This section must link the results to the aim or hypothesis of the experiment. You must give a detailed analysis of results. Use the data in your table and graph to provide "**back up**" **evidence** for your judgments. Analysis requires you to **discuss, explain** and **interpret** the results. Comment on any irregularities or common patterns which were evident. Include any implications these results may have on science and society. Make **inferences** (reasoned deductions) about how the information you used could be important to people in everyday lives. Errors that limit the accuracy of your finding (not mistakes) must be mentioned here by identifying them and explaining how they affect the experiment as well as suggested methods for avoiding error in future. Suggest what **further experiments** could be performed to make results more reliable.

Conclusion: Approx 100 words

Re-read your aim and hypothesis. Explain whether or not you successfully completed the experiment. Was your hypothesis supported by your data or unsupported by your data?

Bibliography: List all resources in correct format that you have used. This information and setting out is given in the back of your student diary.