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| **Sections** | **Description** |
| **Title Page** | * Experiment number and/or title * Your name * Date and time experiment was performed * Location if work was performed in the field * Course name and section |
| **Section 1: Abstract** | * One paragraph that summarizes the report (no longer than a paragraph) * Belongs at the very beginning of the paper, but should be written last * Concise description of the experimental objectives, results, and conclusions * Includes why the experiment was performed; what problems were addressed; what major conclusions were found; and what major conclusions were drawn. * Does *not* include general background information. * Uses proper terminology for your course (examples include: pH, dominant, nucleotide, contamination, X or Y-linked, etc.) |
| **Section 2: Introduction and Background** | * Includes the reason the study is being done, relevant background information about the organism, chemical, or process being examined, and the **hypothesis** or questions being asked in the study. * Briefly explain any specific and relevant theories and research (3 sources expected – see section 7) * Briefly summarize of what was done in the experiment, what was observed and/or what you expected to find, and what, if any, problems were encountered. * Briefly summarize the laboratory techniques and equipment you used to collect and analyze the data upon which the conclusions are based. * Photos and graphic illustrations in this section with graphics in .jpg, .tif, or .gif format to minimize electronic file size. |
| **Section 3: Materials and Methods** | * Lists the materials and/or equipment used to conduct the experiment * Methods states, in paragraph form, what was done by you with enough detail to allow the reader to repeat the experiment step-by-step. * Describes in detail the laboratory techniques and equipment you used to collect and analyze the data upon which the conclusions are based. * Describes the steps of the procedure in order and the reasons for each. Includes all calculations or formulas needed to obtain the final results. * Write this section with the audience in mind; for example, most people do not need to be told how to find the mean or standard deviation of the data, but will need to know the formula used to find the rate of oxygen consumption of an organism |
| **Section 4: Results** | * Results section is written in paragraph form and is one or two pages long * Do not offer any explanation for the results in this section * Presents the results in text and graphic form (figures, tables, graphs) * Describes the general trends seen in the data in narrative form (paragraphs). * All figures and tables should be referenced in the narrative. * Do not redraw the graph in words; let it do the work for you. For example, Temperature had a pronounced effect on seedling growth rate (Figure 6). In particular, seedlings at 25 degrees Celsius consistently grew more rapidly than those at 20 degrees Celsius. |
| **Section 5: Discussion** | * *The discussion is the meat of the lab report.* * Tries to answer the question "Why?" Explains what was expected and what was found. * Do the data support the original hypothesis? Why or why not? * This section presents reasons for the results obtained in the experiment and references related studies. * What trends were noticed; why did they occur? * What is the theory or model behind the experiment and is it substantiated by your results? * This section also includes potential sources of error. What recommendations might improve the procedure and results?   *Consideration is given to:*   * What is the connection between the experimental measurements taken and the final results and conclusions? How do your results relate to the real world? * What were the results of observations and calculations? * What trends were noticed? * What is the theory or model behind the experiment? * Do the experimental results substantiate or refute the theory? Why? Be sure to refer specifically to the results you obtained. * Were the results consistent with your original predictions of outcomes or were you forced to revise your thinking? * Did errors occur (for example, environmental changes or unplanned interference in the procedure)? If so, how did these errors affect the experiment? * Did any errors occur due to the equipment used (for example, contamination due to a lack of aseptic technique)? * What recommendations might improve the procedures and results? |
| **Section 6: Conclusion** | * Consists of a single paragraph. * Restates the objective, the results, and important discussion findings; Does NOT introduce new material. * Conclusion should be supported by at least 3 reasons and/or pieces of data obtained from the experiment. |
| **Section 7: Citations and Presentation** | *For Citations:*   * Presents complete citations for all factual material referred to in the text of the report. * Each citation should include the names of all authors, the year of publication, and the full title * Be sure that all sources are accurately documented in the desired AMA format (see UNE library for resources on this; i.e. RefWorks). * **At least 3 sources are expected, three of which are from the scientific peer-reviewed literature, unless told otherwise by your instructor.** * The rest of these may be non-internet sources (books, magazines, newspapers, journals, etc.). * Avoid the citation of blogs, Facebook, or other non-scientific sites. WebMD, Wikipedia, Mayo Clinic, etc. summary sites are not accepted as references.   *For Presentation:*   * The text for each section is in a narrative format using standard English and using complete sentences * The text displays proper grammar, spelling, punctuation, and word-choice |