

SCICAN! Journal Outline

Legend: New Sections Previously Completed Sections (updated as per feedback)

Voice:

- Verb tense used depends on section. See indicators below.
- Do NOT use 1st person. The experiment is always be the subject of your sentences, NOT yourselves!
ex. Do NOT say, “We burned peanuts.” Instead say, “Peanuts burned.

Formatting:

General:

- Microsoft WORD document
- Narrow** margin setting
- Times New Roman size 12 font only (except title)
- Numbered pages – bottom alignment right

Title:

- Centered, single spaced, words capitalized, **size 14 & bolded** font
- 1 blank line below title: Author First name & **Last initial only**, centered
- Course code, school, city & province, single spaced

Abstract:

- Word **Abstract** bold & centered
- Centered & justified, **single spaced**, one column

All other sections:

- 2 columns, justified, 1.5 spacing
- Section titles** (starting with introduction) numbered with Roman numerals (I, II, III...), align left, **bold & ALL CAPS**

I. INTRODUCTION

- Do not leave large blank spaces/areas
- Include in-text citations where appropriate

Order and Content of Sections:

Title:

- *Title specific enough to describe the contents of the paper, but not so technical that only specialists will understand.*
- *Title describes the subject matter of the article: Effect of Smoking on Academic Performance*
- *Sometimes a title summarizes the results: Students Who Smoke Get Lower Grades*

Example:

Ducks Over-Winter in Colorado Barley Fields in Response to Increased Daily Mean Temperature

(blank line)

Ima M.

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Abstract

Abstract: 1 paragraph only ****NEW**** (PAST TENSE)

- **Short** summary of the **entire** project.
- Use the IMRC format. 1-2 sentences to describe each of the following main points about the project (not detailed procedures):

I= **Introduction** (purpose): The question investigated & why relevant/important

M= **Methods** (simple overview of procedures)

R= **Results** (observations & data): Summarize major findings/trends & answer to initial question

C= **Conclusion** (interpretation of data): State implications/relevance/importance of results

I. INTRODUCTION (SCICAN! Section 2) ~ 2-3 paragraphs (PRESENT TENSE)

- **Part b) Introduce** the project and its purpose – **not** the actual question just yet.
 - Explain the **significance** or importance of the project.
 - Use research to provide some background information about the scientific concepts involved.
 - **Research must be cited in-text and included in references at the end of the paper.**
- **Part a) State the problem/question**
 - The background information needs to lead into the question that is being investigated in this experiment.
 - Make sure your scientific question is worded clearly.
- **Part c) State the Hypothesis**
 - The introduction should conclude with the hypothesis for this experiment.
 - The hypothesis should be in the “If...then...because” form. The “because” is the explanation for your hypothesis & should include **research that is cited in-text & included in reference list.**

II. METHODS (SCICAN! Section 4) ~ 1 page (PAST TENSE)

- **Part b) Summarize** the procedure used to conduct the project in **paragraph** form.
 - Be thorough, yet concise. DO NOT list the materials. DO NOT number the steps of the procedures.
 - There should be enough information here to allow another scientist to repeat your experiment.
 - If you had a complicated protocol, it may helpful to include a diagram, image or flowchart to explain the methods you used.
 - DO NOT include results in this section
- **Part c) Identify the independent, dependent and control variables** in sentences, **not** point form.
 - Identify specifically **why** the **control** variables needed to be controlled.

III. RESULTS (SCICAN! Section 6) ~1-2 pages (PAST TENSE)

- **All data** gathered during the experiment must be presented in this section
- You may use charts, tables, summary sentences, images and graphs.
 - **All tables, graphs, and pictures must include a 1-2 sentence caption explaining content (legends).**
 - The first Table you refer to is Table 1, the next Table 2...
 - **Table** legends go **above** the Table; tables are read from top to bottom.
 - The first Figure is Figure 1, the next Figure 2 ...
 - **Figure** legends go **below** the figure; figures are usually viewed from bottom to top.
 - Make sure tables and graphs are appropriately titled, axes labeled.
 - Do NOT break a table up into different pages. Make sure your table fits on one page. If it doesn't, start the table on the following page.
 - Graphs should be compilations/**averages** of data.

IV. DISCUSSION & CONCLUSION (SCICAN! Section 7) ~ 1 page (PRESENT & PAST TENSE)

- **Part a)** Was the hypothesis correct? Answer the initial purpose/problem using supporting data/information from your project to explain findings (PAST TENSE)
 - Use **specific** data/results to support these statements.
- **Part b)** Provide an explanation for the results by referring back to the scientific background information. (PRESENT TENSE)
 - Highlight the most significant results, but don't just repeat what you've written in the Results.
 - *How do these results relate to the original question?*
 - *Are your results consistent with what other investigators have reported?*
 - *If your results were unexpected, try to explain why. Is there another way to interpret your results?*
 - *State problems and sources of error. Explain how they may have affected your results.*

V. APPLICATION ~ 4-5 sentences **NEW** (PRESENT TENSE)

- Discuss ways or areas where this information is useful.
 - *What further research could be done to answer questions raised by your results?*
 - *How would this information be applied to other fields of study?*
 - *How would the general public or scientific community use this information?*

VI. REFERENCES

- List of **all** citations used in **alphabetical** order in APA format.

Journal Format - Author, A. (Publication Year). Article title. Periodical Title, Volume (Issue), pp.-pp.

Indigo, A. C., and Mauve, B. E. (2014). Gene isolation from the platypus. *Science*, 275 (2), 1213-1214.

Website Format - Author, A. (Year of Publication). Article title. Retrieved on DATE from URL

Loree, H. (2018). Isolation of qwerty gene from *S. cerevisiae*. Retrieved on January 6, 2020 from <http://www.bibme.org/citation-guide/apa/journal-article/>