

SCICAN! Journal Outline

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:

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Microsoft WORD document <input type="checkbox"/> Narrow margin setting <input type="checkbox"/> Times New Roman font only <input type="checkbox"/> Numbered pages – bottom alignment right <input type="checkbox"/> Title: Centered, single spaced, bolded, size 14 font <input type="checkbox"/> Author First name & Last initial, centered, 2 lines below title <input type="checkbox"/> Course code, school, city & province, single spaced <input type="checkbox"/> Abstract:
Centered & justified, single spaced, one column, size 12 font | <ul style="list-style-type: none"> <input type="checkbox"/> All other sections:
Justified, 1.5 spacing, double column, size 12 font <input type="checkbox"/> Section titles (starting with introduction) numbered with Roman numerals (I, II, III...), centered, bold & ALL CAPS
I. INTRODUCTION <input type="checkbox"/> Do not leave large blank spaces/areas <input type="checkbox"/> 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

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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 about the 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 a works cited page provided 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.*

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 **why** the **control** variables were 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 citations 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, Month Date of Publication). Article title. Retrieved on DATE from URL

Scarlet, S.L. (2017). Isolation of qwerty gene from *S. cerevisiae*. Retrieved on January 6, 2019 from <http://www.bibme.org/citation-guide/apa/journal-article/>