

SCICAN! Journal Outline

Voice:

- Verb tense used depends on section. See link [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.

Format:

- Microsoft WORD document
- **Narrow** margin setting
- 12 point font – Times New Roman only
- Do not leave large blank spaces/areas
- **Section titles** (starting with introduction) numbered with Roman numerals (I, II, III...) starting with introduction, centered, **bold & all caps**
I. INTRODUCTION
- **Abstract** will be **centered** on top of the page & single spaced
- **Double Column** format & 1.5 spacing for the rest of the paper
- **Results Tables, Graphs, and Pictures** do not need to fit into columns.

Order and Subject of Sections:

Title:

- Title of the paper is centered at the top of the page – **Bolded** (not underlined), size 14 font
 - *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*
- Author name – centered & 2 lines below title
 - Include course code, school, city & province (single spaced)

For example:

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

Ima Mallard
SNC2DN, Vincent Massey Secondary School – Windsor, ON

Abstract

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

- Title NOT all caps, bolded & centered (see above)
- One paragraph (6-8 sentences) 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 procedure)

R= **Results** (observations & data): Summarize major findings/trends/patterns & 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 written 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, table 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 particular 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 for numerical data.
- Tables and Figures are assigned numbers separately and in the sequence that you will refer to them from the text.
 - All tables, graphs, and pictures must include a 1-2 sentence caption explaining the graph, table, or picture (**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
 - Use **specific** data/results to support these statements.
- *Part b)* Provide an explanation for the results by referring back to the scientific background information.
 - 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?*
 - *What further research would be necessary to answer the questions raised by your results?*
 - *State problems and sources of error. Explain how they may have affected your results.*

V. Application: ~ 4-5 sentences ****NEW****

- Now that you have the answer to the scientific question, discuss ways or areas where this information is useful.
 - *How would this information be applied to other fields of study?*
 - *How would the general public or scientific community use this information?*
 - *How do your results fit into the "big picture"?*
 - *What could future studies be based on these results?*

VI. References:

- In the text, cite the literature in the appropriate places:

Scarlet (1990) thought that the gene was present only in yeast, but it has since been identified in the platypus (Indigo and Mauve, 1994).

- In the References section 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. (1994). Queer place for qwerty: 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. (1990). Isolation of qwerty gene from *S. cerevisiae*. Retrieved on January 6, 2018 from <http://www.bibme.org/citation-guide/apa/journal-article/>