Innovations in Science with Mrs. Steiner

Steiner's belief : diversity and the ability to see the world though our own unique experiences empowers us as individuals.

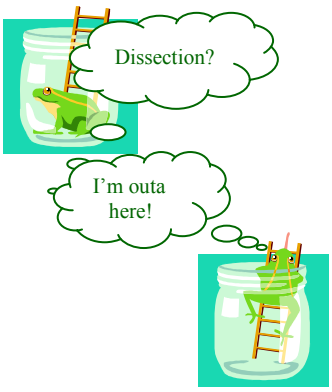
Some Conversions that may be useful:

Temperature: ºC=5/9 (ºF- 32)
ºF=9/5 (ºC) + 32

2.54 cm = 1 in.
1 cc (cm^3) = 1 mL
1000mL = 1L
1000µL = 1mL
Energy = J (joule) = $1kg \cdot m^2/s^2$
1 atm = 760 mm Hg.

Ways to contact Mrs. Steiner:

School Phone: (802) 463-3944-221
Email: ssteiner@eniche.net
*Class Website: **eniche.net***
Science Dept. Website: iiscience.net
Ebscohost: http://search.epnet.com/
User: bfuhs, pswd: terriers



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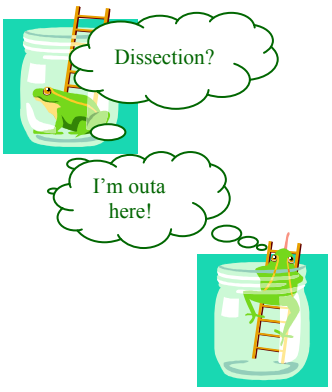

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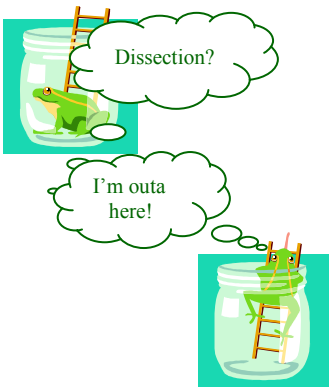

Writing in Science: Lab reports

The Introduction should:
- go from broad to narrow topic (the hypothesis)
- state the problem/reason topic is of interest
- include at least one prior research referenced in a sentence
- provide background information with a clear sense of direction.
- include intext citations throughout the introduction.
- state the justification/significance of the study.
- state clear objectives and write a hypothesis as the last sentence of the introduction.

Introduction Outline:

Beginning =
1. Problem/reason topic is of interest _____
2. Recent studies show _____
3. Research done by _____found that _____

Middle = Relevant Points

1. Main Point _____

a. Explain _____

b. Explain _____

2. Main Point _____

a. Explain _____

b. Explain _____

End =
1. objectives: (The purpose of this experiment)
2. State the hypothesis:

If _____

Then _____

The Materials and Methods section should:
- be narrated in past tense (not 1st person – tell what was done, not what reader should do).
- be written in enough detail for someone else to repeat the experiment.
- include sample sizes.
- indicate the number of trials for each run.
- identify the experimental and control groups.
- Not contain any of the results.
- include methods of analysis and statistical evaluation given.
- include subtitles of separate procedures when appropriate.
- use of setup diagram is okay when appropriate.
- avoid beginning sentences with numbers.

*Don't: 50 mLs of Di-water was added to solute in a flask.

* Do: Agar solution was prepared by adding 50 mLs of Di-water to an Erlenmeyer flask containing 3g of agar powder.

The results section should:
- present data in text and in added tables, figures, and graphs.
- tables, figures, and graphs are referenced within text (figure3).
- simply state facts and be written without comments, bias, or interpretation.
- include the statistical tests that where applied to the data.
- patterns and trends (e.g., eighty percent of the original control group. . .)

The conclusion section should:
- start out narrow and expand to broader implications of study.
- interpretations and speculations are with references of information presented.
- support or lack of support for original hypothesis is well defined.
- shortcomings of experiment and any unexpected findings are pointed out.
- the biological significance and important implications of the results are established.
- suggestions for further studies based on the results obtained are defined.
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