**The Anatomy of a Peer-Reviewed, Scientific Journal Article**

**Objectives** – by the end of this assignment, you should be able to:

* Use library resources to search databases for peer-reviewed, scientific journal articles
* Identify the main parts of a scientific journal article
* Describe what kind of information is presented in each section of the journal article
* Describe the format of the information presented in each section of the journal article

**Part 1: Find a journal article**

* Use library resources (databases) to locate a peer-reviewed, scientific journal article.
  + When searching for articles, make sure you select “Full Text” as an option in the database, because you will need the full copy of the article for this assignment.
  + Use the library databases to find the article! Do NOT just Google for an article. You will most likely find a source that is not appropriate for this assignment, or you will find online databases that will make you pay to access the article. By searching the library’s databases, you will be able to find articles that are appropriate for this assignment AND free of charge to you. Do NOT pay for a journal article.
* The article needs to be related specifically to Biology, but you can choose any topic within Biology that interests you.
* The following journal article types are NOT appropriate for this particular assignment:
  + Case studies
  + Review papers
* The journal article has to include the following sections:
  + Abstract
  + Introduction
  + Materials and methods (may be together or may be two different sections)
  + Results
  + Conclusion
  + Citations
* Scientific journal articles can be hard to understand for a beginning Biology student, so find an article that is at your level that you can understand. It is okay if you do not understand all of the specific terminology, but you should be able to understand what the researchers did at a superficial level.
* If you are unsure if your journal article is appropriate, please send me a link to the abstract or a copy of the pdf and I will confirm your choice.
* Download and save a digital copy (pdf) of your journal article. You will need to either upload the digital copy to Canvas or provide a paper copy when you turn in the assignment.
* The citations must use endnotes, which are typically indicated by the author’s name and the date in parenthesis at the end of the sentence. For this assignment, footnotes are not appropriate.

**Part 2: Review the article**

* Answer the questions on the back of this page as you review your journal article.
* Type up your answers using a word processing program with the following format:
  + 12 point, standard font (Calibri or Arial are both good)
  + Double spaced
  + Normal margins

1. Which database did you find your article in?
2. What is the name of the journal your article was published in?
3. There is other information provided along with the name of the journal. What does this information mean?
4. What are the authors’ names and affiliations?
5. Provide a citation for the journal article you used. Use either MLA or APA format.
6. Read the introduction.
   1. Does the author start talking about the subject broadly and more specific towards the end? Or does the author start talking about a specific topic and then broaden the scope of the information?
   2. Based on the introduction, write a short summary of what specific research was conducted and reported in this paper and how it is related to a broader topic.
   3. What is the researchers’ hypothesis/prediction?
7. Read the Materials and Methods section(s).
   1. List 3 materials that the authors used in their experiments. Be sure to include any specifics the authors mentioned (amount, brand, etc.) Materials may include technology, software used to do modeling or analyze data, reagents, etc.
   2. Identify 3 specifics the authors mentioned with regards to their methods (how they conducted the experiment). This may include how samples were collected and/or tested, how analysis was conducted, time data was collected, etc.
8. Read the results section:
   1. Write down 3 results that the researchers mentioned in the results section. Be sure to include all the information associated with the result (“P” value, statistical tests used, range, average, etc.)
   2. Explain how the researchers presented their data to the reader. Did they write out long lists of raw (un-analyzed) data? Or did they provide tables, graphs, or other images to illustrate the analyzed data?
9. Read the conclusion:
   1. Write a short explanation as to how the conclusion discussed how the results supported or did not support the hypothesis/prediction.
   2. Does the author start talking about the subject broadly and more specific towards the end? Or does the author start talking about a specific topic and then broaden the scope of the information?
10. Read the abstract:
    1. Did the abstract adequately summarize what was covered in the article? Explain why or why not.
11. Citations
    1. Copy down three sentences from the journal article that have citations. Include the specific format of the citation (note parenthesis, where commas and/or periods are located, which letters are italicized, what information is provided, etc.)
    2. Look at the Works Cited or References Page.
       1. What do you notice about the order of the citations?
       2. Describe 4 pieces of information that is provided in most, if not all, of the citations.
       3. Pick a citation, find it in the library database, and copy and paste a screenshot of the title and abstract.
12. If sections other than the ones covered above are included in your journal, list them below.