Honors Biology Components
(Totaling 20% of EACH semester grade.)

One of the main responsibilities of the scientific community is to solve problems that affect humanity and bring more understanding of how the physical world works to the masses. How do we feed our growing population? How will climate change affect crop growth? Are GMOs really dangerous? How do energy drinks affect the human body? Can we create a substance that will clean up oil spills more efficiently with no effects on surrounding organisms?

Throughout the course of each semester, you will be responsible for finding and summarizing 7 scientific articles that all address the same scientific problem you would like to solve. They can each address a different component of the problem that interests you, or they could all relate to the exact same aspect of the problem. The selected articles will then be used as background information and supporting evidence in a research paper regarding the topic you have chosen.

For each article, you are to write a brief summary and analysis. All 7 articles and analyses will be collected in one paper folder “portfolio”. All articles must be from peer-reviewed journals or nationally established science periodicals that specialize in science. (For example, you could select an article from Discover magazine or Scientific American...but not from an online blog or a local interest group.)

**Article requirements:**
- Article itself must be 3+ pages in length.
- Must be from a reliable source (refer to library day).
- Must cover a REAL, established scientific problem.
- Article publication within the last 4 years.

**Analysis requirements:**
- 1 page double-spaced (approx. 250-500 words).
- 1 inch margins, 12 point font with APA citation under title.
- Identify the problem, describe focus of article findings, relate how this article will help you in designing your research project.

**Honors Component Due Date Policy**

Honors Components are considered by the district to be long-term assignments (not homework) and, therefore, will **NOT be accepted late** for credit. These assignments can be turned in early. They must be in **no later than 3pm on the due date**! If you know of a conflict ahead of time (athletic/extracurricular activity, vacation etc.) you NEED to plan ahead. Students may always submit an “absentee” report via email to Mr. White at jwhite@bluevalleyk12.org before 3:00 on the due date as well.

Start early!!!
### Rubric for Assessment of Article Analyses

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<tbody>
<tr>
<td><strong>Formatting (2 points)</strong></td>
<td>All formatting requirements are correct</td>
<td>Most formatting requirements are correct</td>
<td>No formatting requirements are correct</td>
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<tr>
<td><strong>Citation (2 points)</strong></td>
<td>Citation is complete and done in APA format</td>
<td>Citation is incomplete or not in APA format</td>
<td>No citation is present</td>
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<td><strong>Grammar, Syntax, Structure (3 points)</strong></td>
<td>There are no errors or only one error.</td>
<td>There are 2-4 errors, but they do not interfere with the communication of content.</td>
<td>There are more than 5 errors. Communication of content is affected by these errors.</td>
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<td><strong>Summary Content</strong></td>
<td>Article summary is accurate, well organized, coherent and well written. No spelling mistakes. Capitalization and punctuation used.</td>
<td>Summary is accurate, but organization could be improved. No more than 2 capitalization or spelling errors.</td>
<td>Summary is reasonably accurate (some minor errors) or organization is poor. No more than 4 capitalization or spelling errors.</td>
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<td><strong>Description of Article Focus and Findings (6 points)</strong></td>
<td>Description is accurate, well organized, coherent and contains pertinent scientific details. No spelling mistakes. Capitalization and punctuation used.</td>
<td>Description is accurate, but organization could be improved. Focus of scientific details is not clear. No more than 2 capitalization or spelling errors.</td>
<td>Description is reasonably accurate (some minor errors) or organization is poor. Link from findings to focus is unclear. No more than 4 capitalization or spelling errors.</td>
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<td><strong>Identification of How Article will Contribute to Your Research Design (6 points)</strong></td>
<td>Identified contribution is accurate, well organized, coherent and well written. No spelling mistakes. Capitalization and punctuation used.</td>
<td>Identified contribution is accurate, but organization or clarity could be improved. No more than 2 capitalization or spelling errors.</td>
<td>Identified contribution is partially accurate but holds inaccuracies as well. (some minor errors) or organization is poor. No more than 4 capitalization or spelling errors.</td>
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*** Details of Research Paper Proposal, Final Paper, and Presentation are on a separate handout!!!

**Total Points per article:** 30 (25 in the rubric, 5 for presence of hard copy of article and summary at time assignment is due).

- Research Paper Proposal: 40 points
- Final Draft of Research Paper: 60 points
- Presentation of Research: 20 points

Grand Total for Research Paper is thus 120 points!

Proposal Due Tuesday, Sept. 18th.

Research Paper Due Tuesday, Nov. 13th.