**Appendix A**

**Science in the News Article Options**

***Scientific American* Article 1 options**

“[Complex Life Could Be Vastly Older Than Thought](https://www.scientificamerican.com/article/complex-life-could-be-vastly-older-than-thought/)” (2017)

“[Evolving Proteins—No DNA Required” (Gould, 2014)](https://blogs.scientificamerican.com/lab-rat/evolving-proteins-no-dna-required/) (2014)

“[Fact or Fiction? Vaccines Are Dangerous](https://www.scientificamerican.com/article/fact-or-fiction-vaccines-are-dangerous/)” (2015)

“[How Do Antibiotics Kill Bacterial Cells but not Human Cells?](https://www.scientificamerican.com/article/how-do-antibiotics-kill-b/)” (2006)

“[Biology 101 Update: A Cell’s Lysosomes Are More Than Garbage Disposals](https://www.scientificamerican.com/article/biology-101-update-a-cell-rsquo-s-lysosomes-are-more-than-garbage-disposals/)” (2016)

“[More Than Child’s Play: Ability to Think Scientifically Declines as Kids Grow Up](https://www.scientificamerican.com/article/more-than-childs-play/)” (2011)

***Scientific American* Article 2 options**

“[Food Versus Fuel: Native Plants Make Better Ethanol](https://www.scientificamerican.com/article/native-plants-on-marginal-lands-to-reduce-food-versus-fuel-from-biofuels/)” (2013)

“[Gut Microbes May Help Determine Our Immune Response to Vaccines](https://www.scientificamerican.com/article/gut-microbes-may-help-determine-our-immune-response-to-vaccines/)” (2015)

“[Microbes Help Grow Better Crops](https://www.scientificamerican.com/article/microbes-help-grow-better-crops/)” (2013)

“[Whole Grain Foods Not Always Helpful](https://www.scientificamerican.com/article/whole-grain-foods-not-always-healthful/)” (2013)

***Scientific American* Article 3 options**

“[A Dangerous Game: Some Athletes Risk Untested Stem Cell Treatments](https://www.scientificamerican.com/article/a-dangerous-game-athletes-risk-untested-stem-cell-treatments/)” (2013)

“[Genetic Treatments for Sickle Cell](https://www.scientificamerican.com/article/genetic-treatments-for-sickle-cell/)” (2016)

“[How Does Someone Get Two Different-Colored Eyes?](https://www.scientificamerican.com/article/how-does-someone-get-two/)” (2001)

“[Patients Can Now Chose Not to Know Their Own DNA Secrets](https://www.scientificamerican.com/article/patients-can-now-choose-not-to-know-their-own-dna-secrets/)” (2014)

“[The Truth About Genetically Modified Food](https://www.scientificamerican.com/article/the-truth-about-genetically-modified-food/)” (2013)

“[Waiting to Reprogram Your Cells? Don’t Hold Your Breath](https://www.scientificamerican.com/article/waiting-to-reprogram-your-cells-dont-hold-your-breath/)” (2017)

“[Why Does Cancer Therapy Make Food Taste Terrible?](https://www.scientificamerican.com/article/why-does-cancer-therapy-make-food-taste-terrible1/)” (2014)

**Appendix B**

**Science in the News Papers**

**Directions**

1. Choose a *Scientific American* article from the options provided.
2. Write a one- to two-page paper (double-spaced) answering each of the questions below.
3. Be sure to include the reference for the article you reviewed and any other resources you use.

**Questions**

1. 1. What interested you about this article, and why did you choose it?
2. 2. How did this article help to advance knowledge about this scientific topic in (a) the scientific field and (b) your own understanding?
3. 3. How does this article help you to see how the biology you are learning is relevant outside the classroom?

**Appendix C**

**Reflection Papers**

**Directions**

Reflect on the topics we have discussed over the semester and write a one- to two-page response to each of the questions below (double-spaced, Arial or Times New Roman, 12-point font). This paper will not be graded as correct or incorrect because it contains your own thoughts and opinions. However, to get full credit for this assignment, your responses must demonstrate that you have meaningfully considered the questions and put forth effort to reflect on the topics.

**Questions**

1. What connections do you see between the topics we have discussed in class and your own life or your own career?

Things to consider:

* + What particular topics do you find most interesting?
  + What particular topics do you think are connected to your field of interest?
  + Why might understanding of biology concepts in general be useful to you now?

1. Moving forward, how do you see yourself using topics we have discussed in class in your life?
   * How might knowledge of these topics be useful in the future?
   * Why might it be important to have an understanding of some biology in the future?
   * Are there any biology topics that you might want to learn more about in the future? If so, what topics, and what about them interests you?
2. How well do you currently understand the topics we have discussed in class, and what steps could you take to increase your understanding?

Things to consider:

* + How do you determine if you really understanding a topic?
  + How easy or difficult is it for you to understand biology topics this semester? Why do you think that is?
  + What changes could you make to your studying to help you increase your understanding?
  + Discuss if you have made any changes or if you plan to make any changes to how you study this semester, and explain why.

**Appendix D**

**Number of Codes Per Student**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Student Name | Total # of codes | Raul | Kai | Dakota | Jasmine | Rian | Jean | Angel | Avery | Castille | Kathleen |
| Application to personal life | 98 | 1 | 4 | 8 | 14 | 12 | 6 | 13 | 14 | 12 | 14 |
| Interest in science | 105 | 5 | 8 | 14 | 7 | 13 | 11 | 11 | 16 | 11 | 9 |
| Aversion to science | 33 | 5 | 1 | 3 | 4 | 3 | 2 | 3 | 2 | 5 | 5 |
| Biology relevance | 67 | 7 | 4 | 6 | 13 | 10 | 2 | 3 | 12 | 6 | 4 |
| Enhanced understanding | 142 | 13 | 15 | 12 | 16 | 14 | 13 | 11 | 21 | 9 | 18 |