

## AP Biology Summer Assignment 2020

Complete all of the sections of this assignment prior to the first day of school. Save your work in Google Drive or the cloud so that it will be accessible for you to submit. Email Mrs. Ornovitz with any issues over the summer at [iornovitz@springfieldschools.com](mailto:iornovitz@springfieldschools.com).

### Format for submission:

**All parts of the summer assignment will be submitted to Oncourse during the first week of school. You will not receive full credit if all parts are not submitted on the due date in September.**

- For Parts 1-3, write all your information on **one Word Doc** and submit as one. The title of the word doc for submission is: (your) **Name and AP Biology Summer Assignment**
- Use bold headings to identify each section.
- Your PowerPoint must be uploaded to Oncourse. The title of the PPT for submission is **(your) Name and AP Biology Scavenger Hunt**

### Part 1: Animal Behavior

Observe a pet (yours or a friend's) or a backyard animal (for example: bird or squirrel) for a period of a week. Keep a list their habits, behaviors, and types communication and signaling. As you observe behavior, think of an evolutionary advantage to the actions that enhanced the survival of its species throughout time, and are still seen today. Describe the evolutionary advantages next to each observed behaviors.

5 BEHAVIORS MINIMUM MUST BE DESCRIBED.

### Part 2: Current Event Research

Read four full-length articles from NY Times, Time Magazine, or other news or journal source, or National Institute of Health, (NIH), Science News or other scientific journal website(not Livestrong) **A separate article is required for each of the topics below**. The articles may NOT come from a short Internet piece of news (ex: Yahoo News or Science Daily). Write a summary IN YOUR OWN WORDS that shows Mrs. Ornovitz that you have read and understood the content. List the title of the article, the source and the URL.

### **Required Topics: Content Areas of AP Biology**

1. Genetics
2. Environmental/Ecology
3. Evolution
4. Cells (anything related: molecular functions, communication, malfunction of an organelle)

### Part 3: TED Talks

<http://www.ted.com/>

- Listen to 1 hour of TED talks (you can combine them to add up to 60 minutes.)
- Choose talks related to the four content areas of AP Biology. (see part 2)
- List the title of the talk and URL. Describe each talk and how it relates to the study of Biology.
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### Part 4: Scavenger Hunt PowerPoint

- Locate the items listed below. The samples must be real, do not take a picture of yourself in front of a computer screen. (it's been tried before)
- Have someone take a photograph of you with the item or take a selfie with the item. **YOU MUST BE IN EACH PHOTO TO GET CREDIT.**
- Create a PowerPoint with 25 slides (2 picture boxes on each slide).
- Label each photo with the name of the item you are identifying and a detailed description of the organism. **You will not receive full credit for just a picture, it must have a textbox with a definition of the 49 samples.**
- The pictures must be in the same numbered order as below.

## AP BIOLOGY SCAVENGER HUNT TERMS

1. adaptation of a plant (explain your example)
2. something containing actin & myosin
3. adhesion of water
4. angiosperm
5. annelid
6. annual plant
7. auxin: influence on plant growth
8. arachnid
9. arthropod
10. autotroph
11. bryophyte
12. C4 plant
13. carbohydrate
14. cellulose (something that contains)
15. cell wall
16. chitin (something that contains)
17. climax community
18. cohesion of water
19. conifer leaf
20. cuticle layer of a plant
21. deciduous leaf
22. decomposition
23. dicot plant leaf pattern
24. epithelial tissue
25. ethylene producing fruit
26. eukaryote
27. product of fermentation
28. gymnosperm
29. heartwood
30. something that contains keratin
31. leaf- gymnosperm
32. lichen
33. monocot plant
34. mycelium
35. niche
36. pine cone – female
37. pioneer species
38. perennial plant
39. plant that shows alternation of generations
40. vascular plant tissue
41. phototropism
42. a fish
43. bird feather
44. flower ovary
45. fern
46. fungus
47. genetically modified plant or product
48. organism that is an endotherm
49. root
50. a picture of yourself at the end of this project