

# Welcome to the “Summer of Biology” 2022



Dun....Dun....dun...dun...dun...dun...

Is it safe to go back in the water? NO! Like a shark, there lurks the **AP Biology Summer Assignment!** This summer you will delve into the world of biology like you never thought you would in those hot months! We will explore topics to wet your appetite for the coming year of hard work.

This summer assignment has been designed for several purposes:

§ to get you to think during those summer months to keep your mind sharp, because we will expect a lot out of it come September!

§ to expand your vocabulary by familiarizing you with terms that we will be using in class.

§ to introduce you to major concepts from AP Biology through non-classroom methods of learning.

# WELCOME ABOARD

## ASSIGNMENTS

1. Read the first two chapters of "Your Inner Fish" by Neil Shubin, and write a brief outline (~ 1 page) for each chapter. Be prepared to discuss the book, you will have to answer some questions on both chapters. Share your chapter summaries with me on [Google drive](#) by **August 22nd!**

2. Watch several short videos - there will be a short quiz on the videos on the first day of school!

- <http://www.bozemanscience.com/020-biotic-and-abiotic-factors>
- <http://www.bozemanscience.com/046-communities>
- <http://www.bozemanscience.com/047-ecosystems>
- <http://www.bozemanscience.com/051-ecosystem-change>
- <http://www.bozemanscience.com/050-populations>

### 3. Ecology Scavenger Hunt - you must share your work on [Google Drive](#) with me by September 6th

Find and take a "selfie" with each item. Write a brief description to go with the selfie. Create a doc or a ppt with the images and descriptions. You need to be in the shot! No taking images off the internet!

Each object can only count for one item on the list, but you have choices. Items 1-50 are worth 2 points, an ecosystem is worth 8 points. You need to get a total of 100 points and you have two options to earn them.



#### **Option A:**

- a) Take a selfie - you in an ecosystem.

Description should include: type of ecosystem; type of biome ecosystem is part of; location of ecosystem; 3 abiotic factors and 3 biotic factors.

AND

b) choose any 46 items from the list, REMEMBER each object (selfie) can count only for one item on the list! You **cannot** use items from your ecosystem as any of the 46 items!

**Option B:** Take a selfie and write an appropriate description for **EACH** item on the list below. REMEMBER each object (selfie) can count only for one item on the list!

### Example of description to go with selfie:

The bee in the photo below is serving as a **(41) pollinator**. The bee will move from flower to flower feeding on the nectar the plant has to offer. As the bee feeds on the nectar it will rub up against the pollen produced by the flower's stamen. Some of the pollen will adhere to the bee's body. When the bee moves to a new flower, some of the pollen attached to its body will stick to the sticky stigma of the female's pistil on the new flower. This is known as cross pollination, where the pollen of one flower is used to fertilize the egg of a different flower.

### Scavenger Hunt List:

1. commensalism
2. phototropism
3. parasitism
4. predator-prey relationship
5. a primary consumer
6. mimicry
7. secondary succession
8. a secondary consumer
9. a decomposer
10. a simple food chain
11. an abiotic factor
12. evidence of decomposition
13. evidence of human impact on an ecosystem
14. an example of cryptic coloration
15. a community
16. a gymnosperm
17. an angiosperm
18. evidence for artificial selection
19. a plant adaptation
20. an animal adaptation
21. genetic variation within a population
22. genetically modified organism
23. an autotroph
24. cuticle layer of a plant
25. a wind dispersed seed
26. a scavenger
27. a lichen
28. a producer
29. an amphibian
30. an animal track
31. a sporophyte
32. a reptile
33. tree rings
34. a dicot leaf
35. mutualism
36. C3 plant
37. C4 plant
38. CAM plant
39. a flower
40. a fungus
41. a pollinator
42. moss
43. a monocot leaf
44. a heterotroph
45. a population
46. exoskeleton
47. a biome
48. meristem
49. gametophyte
50. a reptile