

Welcome to Mr. Swetz's AP Biology Course for the 2018-19 School Year!

Directions:

Please complete the following assignments over the summer. They are a very important tool for me to assess your skills in lab and analysis. Be sure to bring your assignments to school on the first day of class.

Part I: PLANT ASSIGNMENT

ADOPT A PLANT

Meet your new responsibilities:

<http://www.gardeningknowhow.com/ornamental/foilage/coleus/coleus-plant-care.htm>

Coleus:

Objective: To get you to experience that plants are living, breathing, growing, responsive creatures.

Your Goal: To nurture your plants successfully throughout the summer.

Get them to grow, get them to branch, grow them big and bushy! Specifically...

Coleus: A prize for the biggest, bushiest Coleus. No Flowers!

Questions:

1. How do I take care of a Coleus?
2. How do I transplant a Coleus?
3. How do I stop my Coleus from blooming?
4. How do I get my plant to branch and get bushier?
5. Do these plants like lots of sun or do they need some shade?

Answers:

Look it up! Do some research!

Extra Credit:

Propagate your Coleus. Come in with a vegetatively propagated offspring from your plants.

Part II: Scavenger Hunt

BIOLOGY COLLECTION

For this part of your summer assignment, you will be familiarizing yourself with science terms that we will be using at different points throughout the year. On the next page is the list of terms.

1. Select 20 terms

Using Google Docs, Post a slideshow showing your best visual definition of that term.

You may not use any explanation, but you may use graphs, pictures, products, etc.

You may use the

internet, your own photos, etc. to complete this part of the summer assignment. If you have any

questions please email me.

Extra credit will be offered for the best collection!

For Google Docs help go here <http://learn.googleapps.com/docs>

BIOLOGY COLLECTION TERMS

1. adaptation of an animal
2. adaptation of a plant
3. abscisic acid
4. actin
5. amniotic egg
6. amylase
7. angiosperm
8. animal that has a segmented body
9. annelid

10. anther & filament of stamen
11. arthropod
12. archaebacteria
13. autotroph
14. auxin producing area of a plant
15. basidiomycete
16. Batesian mimicry
17. biological magnification
18. bryophyte
19. C 4 plant
20. Calvin cycle
21. carbohydrate – fibrous
22. cambium
23. cellulose
24. chitin
25. chlorophyta
26. cnidarian
27. coelomate
28. conifer leaf
29. commensalism
30. connective tissue
31. cuticle layer of a plant
32. deciduous leaf
33. deuterostome
34. dicot plant with flower & leaf
35. diploid chromosome number
36. echinoderm
37. ectotherm
38. endosperm

39. endotherm
40. enzyme
41. epithelial tissue
42. ethylene
43. eubacteria
44. eukaryote
45. exoskeleton
46. fermentation
47. flower ovary
48. frond
49. fruit – dry with seed
50. fruit – fleshy with seed
51. gametophyte
52. gastropod
53. genetically modified organism
54. gibberellins
55. glycogen
56. gymnosperm cone
57. haploid chromosome number
58. heartwood
59. hermaphrodite
60. insect
61. K-strategist
62. keratin
63. leaf – gymnosperm
64. lepidoptera
65. lichen
66. lignin
67. lipid used for energy storage

68. littoral zone organism
69. long-day plant
70. meristem
71. modified leaf of a plant
72. modified root of a plant
73. modified stem of a plant
74. monocot plant with flower & leaf
75. muscle fiber – striated
76. mutualism
77. mycelium
78. mycorrhizae
79. myosin
80. nematode
81. niche
82. nymph stage of an insect
83. parasite
84. parenchyma cells
85. phloem
86. pine cone – female
87. platyhelminthes
88. pollen
89. pollinator
90. porifera
91. prokaryote
92. protein – fibrous
93. protein – globular
94. protostome
95. pteridophyte
96. r-strategist

97. radial symmetry
98. rhizome
99. scale from animal with two-chambered heart
100. spore
101. sporophyte
102. stem – herbaceous
103. stem – woody
104. stigma & style of carpel
105. tendril of a plant
106. thorn of a plant
107. unicellular organism
108. vascular plant tissue
109. xerophyte
110. xylem

Part III: AP Biology Summer Assignment Part 3

Summer Reading Assignment:

Choose one of the following books to read and then complete a book report on that book according to the following guidelines. Use- 12 font—1-inch margins to type this report. Your report should be three to five pages and be cited in APA format. If APA is new to you use www.citationmachine.net for help or google “OWL and Purdue and APA” to see what a paper looks like in APA format.

NO Jurassic Park

NO DaVinci Code

Your report must include the following:

1. A one page synopsis (summary) of the story. I realize technology is helpful, but many of these have details that cliff notes leave out.
2. A one –two page reflections on the ideas/issues/controversies/conflicts in the book.
3. A one page summary of the biological concepts presented in the book.
4. The text cited in APA

If you find a different book that you are interested in, email the title to me and I will approve it**

AP Biology Suggested Reading List

<http://www.montgomeryschoolsmd.org/uploadedFiles/schools/rmhs/departments/science/apbioreadinglistgp.pdf>

A great list!

*The Monkeywrench Gang

Abby, Ed

A Short History of Nearly Everything

Bryson, Bill

Chromosome 6

Cook, Robin

The Selfish Gene

Dawkins, Richard

To Know a Fly	Dethier, Vincent
The Cell Builders	DeYoung, H. Garrett
The Third Chimpanzee	Diamond, Jared
The Heat is On	Gelbspan, Ross
Biotechnology Unzipped: Promises and Realities	Grace, Eric S.
Unravelling DNA	Grank-Kamenetskii, Maxim D.
The Los Angeles River	Gumprecht, Blake
Tragedy of the Commons (1968)	Hardin, Garret
Ravens in Winter	Heinrich, Bernard
Legacy of Luna Hill,	Julia Butterfly
Prairie Kepper	Houle, Marcy
*A Sand County Almanac (1949)	Leopold, Aldo
Green Delusions	Lewis, Martin W.
The Triple Helix	Lewontin, Richard C.
King Soloman's Ring	Lorenz, Konrad Z.
Beyond the Limits	Meadows, Donella H.
Killer Algae	Meinesz, Alexander
The Song of the Dodo	Quammen, David
Genome: The Autobiography of a Species	Ridely, Mark
Island of the Colorblind	Sacks, Oliver
Song for the Blue Ocean	Sarfina, Carl
Rosalind Franklin and DNA	Sayre, Anne
The Lives of a Cell	Thomas, Lewis
This Changes Everything	Naomi Cline

Inheritance

Sharon Moalem

Gene

Siddartha Murkhurjee

****No Davinci Code or Jurassic Park!****