



# AP Biology Summer Assignment 2016-17

Dear AP Biology Students,

Welcome to AP Biology and thank you for embarking on this challenging and rewarding road with me! I am excited about working with you as you continue to broaden your scientific knowledge. As you are all aware, Advanced Placement courses are quite rigorous and AP Biology is no exception. We will be completing a course that is equivalent to two semester college courses in addition to a lab course. At times, I will ask you to stretch yourself and the task at hand will seem overwhelming. However, be assured that I will not ask any more of you than I am also willing to give. Don't worry while the course is challenging, it is also rewarding!

Your summer assignment begins by:

1. Letter of Introduction- Your first assignment is to successfully send me an email. The due date for this assignment is June 20, 2016. TO: [Delicia.crews@henry.k12.ga.us](mailto:Delicia.crews@henry.k12.ga.us)

Your email must adhere to the following guidelines:

- 1) Use clear, full sentences with correct punctuation. Proofread!! Proofread!!!! Proofread!!!! Use spell check before you hit that "send" button.
- 2) Do not use text language! Do not abbreviate words like you would when texting a friend. Rather, use a formal style of communication in the letter like you would use when writing to your college professor. This will be good practice for communicating with your real professors in the future.

**PLEASE DON'T WAIT UNTIL THE LAST MINUTE TO DO THE SUMMER ASSIGNMENT!!**

- 3) Address the email to me at: [Delicia.crews@henry.k12.ga.us](mailto:Delicia.crews@henry.k12.ga.us)
  - 4) Make the subject heading: AP Biology Letter of Introduction: Your first and last name.
  - 5) Begin the letter with a formal salutation, like “Mrs. Crews,” or “Dear Mrs. Crews,”
  - 6) Now introduce yourself and tell me a little bit about you (“Hello, my name is \_\_\_\_\_”)
    - a. What do you like to do (hobbies, sports, music, interests)?
    - b. Tell me a little about your family (Mom, Dad, Guardian, Siblings, Pets, how long you’ve lived in the area.)
    - c. What do you like most about Biology?
    - d. Why are you taking this class and what do you hope to learn about?
    - e. What are you most anxious about in AP Biology?
  - 7) End the email with a formal closing, like “Sincerely.” Then skip four spaces and write your name below the closing like you would if you were writing a letter.
2. Sign in to google.com using your school issued email account and password.
- a. Email- [studentnumber@henry.k12.ga.us](mailto:studentnumber@henry.k12.ga.us)
  - b. Password – 1<sup>st</sup> initial of 1<sup>st</sup> name+1<sup>st</sup> initial of last name+birthdate(mmddy)+#
  - c. Example:
    - i. Email – [012345@henry.k12.ga.us](mailto:012345@henry.k12.ga.us)
    - ii. Password- jd012299#
  - d. Set up a folder in **Google Drive**, label the folder “**AP Bio [and your first and last name]**”. Share this folder with me. Create Google Docs and place your summer assignment PowerPoint/Prezi in there, modifying as often as you need until the first day of school. I will share information with you via googledocs throughout the summer. To create a folder, click folder instead of document. (If you have not used Google Docs before, instructions are available here): <https://www.youtube.com/watch?v=EKt3-fruLyE>

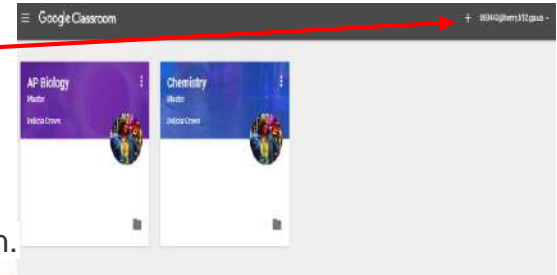
Do this ASAP

3. Sign up for REMIND (AP BIOLOGY 2016).
  - a. Text @h6f6c to 81010
  - b. Trouble using 81010? Try texting @h6f6c to (720) 336-4640
  - c. Or you can use this link <https://www.remind.com/join/h6f6c>

Do this ASAP

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- 4. Join AP Biology google classroom- The summer assignment will be located here along with all links.
  - a. Go to <https://classroom.google.com>
  - b. Sign in using your school issued email account and password.
  - c. Click on the plus sign in the upper right corner.
  - d. Enter class code to join: r0ws99



Do this ASAP

- 5. Purchase the AP Biology Review book, 5 Steps to a 5 in AP Biology, 2016 edition.

**SUMMER ASSIGNMENT #1- Project Grade (20% of overall grade)**

**AP BIOLOGY SUMMER ASSIGNMENT SCAVENGER HUNT**

FIND AND TAKE A "SELFIE" WITH EACH ITEM. **EACH OBJECT CAN ONLY COUNT FOR ONE ITEM ON THE LIST.** CREATE A PPT OR PREZI WITH THE IMAGES AND DESCRIPTIONS. **YOU NEED TO BE IN THE SHOT! NO TAKING IMAGES OFF THE INTERNET! YOU CAN MEET EACH OTHER OVER THE SUMMER TO COMPLETE**

**THE ASSIGNMENT.** The assignment is due on the first day of school **NO EXCEPTIONS!!!!**

**Please DO NOT EMAIL DIRECTLY TO ME.**



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1. Commensalism	2. An arachnid	3. A non-flying insect
4. Mutualism	5. An annelid	6. Evidence of decomposition
7. A population	8. A community	9. Evidence of cellular respiration
10. An ecosystem	11. A fungus	12. Moss
13. A monocot leaf	14. A dicot leaf	15. An animal track
16. A simple food chain	17. Batesian mimicry	18. Mullerian mimicry
19. A wind-dispersed seed	20. An animal dispersed seed	21. Biotic factor
22. An example of cryptic coloration	23. A primary consumer	24. A bird
25. Growth rings in a tree trunk	26. An amphibian	27. Something made of keratin
28. Something made of cellulose	29. Something made of chitin	30. Parasitism

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31. An abiotic factor	32. An autotroph	33. Primary succession
34. A fruit	35. A flower	36. A gymnosperm
37. A reptile	38. An example of thigmotropism	39. A sporophyte
40. An arthropod	41. Secondary Succession	42. An endotherm
43. Phototropism	44. Lichen	45. Spending time with friends and family
46. You playing a sport	47. Free Selfie	48. Free Selfie

### **Assignment 2: Biology & Chemistry Review (Pre Test- Quiz grade)**

A solid comprehension of introductory biology and chemistry are essential for further study and experimentation in the life sciences. You will be expected to understand and apply the following concepts. Please take some time to review your notes/texts and other resources from previous classes and seek help at the start of school, if you are having difficulties. Bring in your notes and any questions on the first day of class. **You do not need to turn anything in for this assignment.**

**Your diagnostic test applying these basics will be assessed on your third class meeting.**

(This will help me gauge your preliminary understanding of the concepts.)

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Use these resources and other resources to assist you in reviewing and understanding terms and concepts:

1. Bozeman Science Biology Playlist

[https://www.youtube.com/watch?v=ibhnP5suqK8&index=2&list=PL7A750281106CD067&/](https://www.youtube.com/watch?v=ibhnP5suqK8&index=2&list=PL7A750281106CD067&list=PL7A750281106CD067&)

2. Chemistry Playlist

<https://www.youtube.com/watch?v=jEoQ6TNLJl8&list=PL43285691048DAD00>

3. Chemio app

4. Online Textbook

**AP Biology 2015/2016 Directions for registering for the Campbell Website and online textbook.**

Go to [www.pearsonschool.com/access](http://www.pearsonschool.com/access)

Enter Code **SSNAST**

Click on Covered Titles

Click on Science

Click on Reese et al., Campbell... (for 8e users)

Click on Student Registration

Click I Accept at the bottom of the License Agreement page

Under "Do you have a Pearson Education Account?" click No

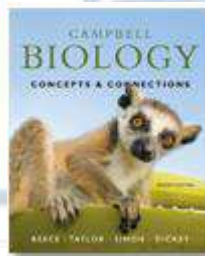
Create a login name and password

Enter the registration code below:

**SNAST-BLIDA-DUMKA-FAUGH-RETOT-SWORD**

Click Next

On the next page, fill in your full first and last name.



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Fill in the email address that you check regularly. (Make sure you don't make a typo)

Select Country (United States)

Under Zip Code type: 30248

In the box labeled school name, select other.

In the Box labeled Other School Name type – Locust Grove High school

In the Box labeled City type – Locust Grove

Select Georgia in the School State box.

In the next section choose a question for Campbell to ask you if you need login assistance.

In the Your Answer box, type in the answer to the question. Click the next button.

Print out the Confirmation and Summary page.

Write your password under your login ID.

Place the printed page in a safe place.

Once you have completed the registration process, you will receive a confirmation email that includes a link to the website where you can log in using the username and password you created. You will now have access to all the Campbell materials for your book. You also have access to the textbook online (etext).

Please email me if you are having difficulties. [Delicia.crews@henry.k12.ga.us](mailto:Delicia.crews@henry.k12.ga.us)

**Diagnostic Exam Concepts/ Content**- It would be a great idea to create flashcards for the following terms or area of information below:

1. Scientific method
2. Experimental design and hypothesis testing
3. Properties of water
4. Monomers and polymers
5. Dehydration synthesis and hydrolysis

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6. Organic macromolecules (carbohydrates, proteins, lipids, nucleic acids)
7. Cell Theory
8. Endosymbiont/Endosymbiotic Theory
9. Fluid-mosaic model and phospholipid bilayer
10. Membrane transport
11. Cells; structures and functions of cellular components/organelles
12. Cellular respiration (glycolysis, oxidation of pyruvate, Krebs cycle, electron transport chain; lactate & ethanol fermentation)
13. Photosynthesis (light-dependent and light-independent reactions)
14. Cell cycle (interphase, mitosis/meiosis)
15. Semi-conservative replication
16. Basic genetics (Mendel's principles of segregation and independent assortment)
17. Central Dogma of Molecular Biology
18. Laws of Thermodynamics
19.  $PV = nRT$
20. Periodic Table of Elements
21. CHNOPS: Carbon, Hydrogen, Nitrogen, Oxygen, Phosphorus, Sulfur (major elements in living matter)

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22. Matter (mass & volume)
23. Subatomic elements (electrons, protons, neutrons)
24. Radioactive isotopes
25. ENERGY (including potential and kinetic energy, free energy, ATP, light energy, heat energy, etc.)
26. Energy levels & electron orbitals (valence, valence electrons)
27. Bonding: covalent bonding; ionic bonding; Van der Waals interactions, etc.
28. Redox reactions
29. Stoichiometry
30. Molarity
31. pH (hydrogen ions, hydroxide ions): acids, bases, buffers
32. Enzymes and other catalysts
33. Evolution
34. Theories of Natural selection
35. Nervous system, Immune System, Cardiovascular system

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