



**AP Biology Summer Assignment**  
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Hello! Happy Summer and welcome to AP Biology. What to expect in AP Biology? It is one of the most interesting and challenging high school classes available. You can expect to work hard, learn a lot, and have fun. Statistically, AP biology is the hardest of all AP classes to earn a score of 5 (the highest score) and to get a 3 or above (earns college credit at some universities) generally requires A LOT of work. Here is your summer assignment:

Some notes on required resources for this class:

1. Textbook: Some students work quite well reading, taking notes, and working practice problems from a textbook. Others are better suited to the multitude of content available online. *You will not be required to purchase or use a textbook for this class.* Assignments will all be available online or through printouts. If you would like to have a textbook as a resource, I recommend this one: Biology AP Edition, McGraw Hill
2. Calculator: You will be required to have a calculator with you everyday in class. We won't use them every day but you should have it. We aren't going to use our phones as calculators in AP Biology because you can't use your phone on the AP exam and that is what we are practicing for.

**Investigate the questions below (answer on a Google doc). This can be done using the internet, and/or resources available through the college board AP Bio website.**

*What differentiates living from non-living?*

*What is the cell theory?*

*Are there any problems with the cell theory?*

*How do cells replicate?*

*What are cells made of?*

*How do cells recognize each other and coordinate actions to make tissue?*

*The theme of Evolution is a 'Big Idea' in this course, how can a mutation lead to an 'evolved' population?*

*Cells can communicate with other cells. Can you find examples of when this happens in humans and why is it important?*

**Watch the following 6 Bozeman Science videos and take some notes about each:**

<http://www.bozemanscience.com/biology>

<http://www.bozemanscience.com/classification-of-life>

<http://www.bozemanscience.com/005-essential-characteristics-of-life>

<http://www.bozemanscience.com/hierarchy-of-life>

<http://www.bozemanscience.com/scientific-method>

<http://www.bozemanscience.com/three-domains-of-life>