

AP/CCP Biology Summer Choice Board (Newell)

Overview: Get excited for AP Bio! This course is structured around 4 "big ideas". **Over the course of the summer, complete at least one activity per row.** Have an idea for something different from what I suggested? Cool! Go with it. You are not limited to only these options. When we return to school, you will be asked to **show evidence of your experiences and share them with the rest of us** to kick off our year of biological investigation.

Big Idea	Activity Choice			
	Something to Experience	Something to Read	Something to Watch	Something to Listen to
<p>1. EVOLUTION <i>The process of evolution drives the diversity and unity of life.</i></p>	<ul style="list-style-type: none"> • Get outside- find some organisms, and describe/document genetic variation within the population • Be an artist- draw/paint and label some plant or animal adaptations that you observe in nature 	<p>Read this book-Your Inner Fish (1st two chapters or all of it!)</p>	<p>Your Inner Fish PBS documentary (1 or 3 parts!)</p>	<p>RadioLab- The Good Show</p> <p>Science Friday- The Twists And Turns Of The Evolution Of Life On Earth</p>
<p>2. ENERGETICS <i>Biological systems use energy and molecular building blocks to grow, reproduce, and maintain dynamic homeostasis.</i></p>	<p>Experiment- Pick up some seeds from a garden store and see what you can grow. Choose an IV (independent variable) and design and implement your own experiment. Make connections with concepts like biochemistry, macromolecules, and cell processes like photosynthesis and cell respiration</p>	<p>Your choice! Find something 😊</p>	<p>TedTalk- Enzymes</p>	<p>Science Friday- Lactose Intolerance and Your Gut Microbiome</p>
<p>3. INFORMATION STORAGE AND TRANSMISSION <i>Living systems store, retrieve, transmit, and respond to information essential to life processes.</i></p>	<p>Get outside and observe plants or animals responding to stimuli. Document your observations.</p>	<p>Read this book-The Selfish Gene</p> <p>Read this book-The Immortal Life of Henrietta Lacks</p> <p>Read this book-Lifespan: Why We Age and Why We Don't Have To</p>	<p>TedTalk- rewriting DNA</p> <p>TedTalk- Sleep is your Super Power</p>	<p>Science Friday- Personalized Immunotherapy Shows Promise Beyond Cancer</p>

<p>4. SYSTEMS INTERACTIONS</p> <p><i>Biological systems interact, and these systems and their interactions exhibit complex properties.</i></p>	<p>Take up Bird Watching as a summer hobby and start your "Birding Life List".</p> <p>Create an art piece about ecology- how organisms in your backyard are interacting with each other and the environment</p>	<p>Read this book- The Serengeti Rules- check out from the library, not too expensive on Amazon, free on audible</p> <p>Read this book-A Walk in the Woods</p>	<p>TedTalk- How you can help save the Bees</p> <p>Our Planet Documentary - available on Netflix</p>	<p>Go outside and listen to animals communicating both within a species, and between species- document your observations</p> <p>Science Friday- How Humboldt Squid Talk To Each Other In The Dark</p>