



---

### **Course Description: Biology the Living Earth**

This course follows a macro- to micro- to macro- design, allowing students to move between big picture concepts and more detailed and mechanistic understandings. This arrangement of topics is designed to develop student understanding in a rigorous and accessible way that builds upon prior knowledge from middle school and the previous units in this course. Beginning with the observable world provides students with the conceptual foundation to investigate and build understanding of the invisible world. This approach aims to establish why concepts are important to better engage students with the microscopic ideas that are fundamental to understanding them.

Launching and concluding the year with ecology allows students to deepen their understanding of driving questions, make connections, and see relationships between macro and micro scales.

### **Course Topics**

Beginning with ecology, students first learn about the environment's influence on organisms and end with how organisms, mainly humans, can influence their environment. Ending the year with human impact creates opportunities for rigorous and relevant culminating projects that tie together the learning from the entire year.

Topics covered will include Ecology, Cell Biology, Homeostasis, Inheritance, Genetics, and Evolutionary Biology.

### **Course Expectations**

Students will be expected to perform labs / activities and adhere to all proper safety protocols. Student will have approximately 30-45 minutes of homework after each class meeting.

### **Textbooks / Provided Materials**

CK-12 Biology, Brainard, CK-12 Foundation 2018

CK-12 Earth Science for High School, Desonie, CK-12 Foundation 2018

Microsoft Office 365 Suite / OneNote for notes and work completion

### **Required Materials**

Scientific Calculator (TI-30XIIs equivalent or better)

### **Suggested Materials**

Apple or PC tablet with pen feature, or a pen/pad USB plug-in. These devices will increase the student's productivity for organization and work completion.

*High Bluff Academy is accredited by the Western Association of Schools and Colleges (WASC). The above course is approved by the University of California system (A-G) and the National Collegiate Athletic Association (NCAA).*