

## Cobb County School District 2018-2019

<b>AP Biology Teaching &amp; Learning Framework</b> (for detailed information and course descriptions refer to <a href="http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2117.html?excmpid=MTG243-PR-21-cd">http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2117.html?excmpid=MTG243-PR-21-cd</a>				
Unit 1: Evolution	Unit 2: Cellular Processes: Energy and Communication	Unit 3: Genetics and Information Transfer	Unit 4 Interactions	SLO Exam and AP Exam
<b>Big Idea #1:</b> The process of evolution drives the diversity and unity of life.	<b>Big Idea #2:</b> Biological systems utilize energy and molecular building blocks to grow, to reproduce, and to maintain homeostasis.	<b>Big Idea #3:</b> Living systems store, retrieve, transmit, and respond to information essential to life processes.	<b>Big Idea #4</b> Biological systems interact, and these interactions possess complex properties.	
<b>Enduring Understandings:</b>  1.A. Change in the genetic makeup of a population over time is evolution. 1.B. Organisms are linked by lines of descent from common ancestry. 1.C. Life continues to evolve within a changing environment. 1.D. The origin of living systems is explained by natural processes.	<b>Enduring Understandings:</b>  2.A. Growth, reproduction, and maintaining organization of living systems require energy and matter. 2.B. Growth, reproduction, and homeostasis require that cells create and maintain internal environments that are different from their external environments. 2.C. Organisms use feedback mechanisms to regulate growth and maintain homeostasis. 2.D. Growth and homeostasis of a biological system are influenced by changes in the system’s environment. 2.E. Many biological processes involved in growth, reproduction, and homeostasis include temporal aspects.	<b>Enduring Understandings:</b>  3.A. Heritable information provides for continuity of life. 3.B. Expression of genetic information involves cellular and molecular mechanisms. 3.C. Transfer of genetic information may produce variation. 3.D. Cells communicate by generating, transmitting, and receiving chemical signals. 3.E. Transmission of non-heritable information results in changes within and between biological systems.	<b>Enduring Understandings:</b>  4.A. Interactions within biological systems lead to complex properties. 4.B. Competition and cooperation are important aspects of biological systems. 4.C. Variation within biological systems affects interactions with the environment.	
For AP courses, the College Board provides multiple options for teachers with respect to course planning and pacing. Teachers are encouraged to adopt the framework that best fits their school and students. AP instruction is also infused with Scientific Practices. Scientific Practices provide ways for students to coordinate knowledge and skills and establish lines of evidence which they can use them to develop and refine testable explanations and predictions of natural phenomena.				