

## **Biology 2**

### **RCAS Policies/Procedures:**

Students will be required to follow all RCAS policies and procedures. To view the RCAS High School Student Handbook, click [handbook](#).

### **Course Description:**

In this course, the students will study the macroscopic (large scale) components of biology. They will be introduced to the significance of heredity (how genes carry traits from parent to offspring and the impact those characteristics have on a species), the mechanisms of genetic change (mutations and how such changes lead to the diversity of biological organisms), and ecology, which will lead to an understanding and knowledge of humans' impact on the environment

### **Textbook:**

Biology (Miller and Levine)

### **Required Resources:**

Any readings will be available on Canvas. If a physical copy is needed, please discuss with your teacher and they will have one available for the student.

**“Limited Choice” Resources:** (students will be asked to choose at least one title from this list)

### **Student Choice:**

Will student be asked to choose additional reading material from the classroom or school library?

No

## **Essential Questions:**

- How are the characteristics from one generation related to the previous generation?
- How can there be so many similarities among organisms, yet so many different plants, animals, and microorganisms?
- How does biodiversity affect humans, and how do humans impact biodiversity?
- How do matter and energy move through ecosystems?
- How do organisms interact with their environment to obtain matter and energy?

## **Essential Learning Intentions:**

- Students can predict inheritance patterns using specific traits.
- Students can show how the survival of a population is impacted by natural selection.
- Students can describe how the evolution of specific traits can contribute to a species' survival.
- Students can describe the flow of energy through an ecosystem.
- Students can describe how nutrients move through an ecosystem's biotic and abiotic parts.