



2024-2025

Rapid City
Alternative Academy

Biology 1

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:

This course introduces the students to and focuses heavily on the microscopic (small scale) aspect of biology and developing their skills in experimental design using the scientific method. The students will gain an understanding in the basics of chemistry, cellular structure and function, the flow of energy through studying photosynthesis and cellular respiration, and the importance of genetics in all biological fields.

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:

- What are the roles of macromolecules in cellular processes?
- How do the structures of organisms enable life's functions?

Essential Learning Intentions:

- Students can compare and contrast the structure and function of the four macromolecules.
- Students can describe how the code of DNA is transcribed into messenger RNA and is utilized to synthesize a protein.
- Students can model the differences between mitosis and meiosis.