La Costa Canyon High School

Science
Biology

Level of Difficulty	Estimated Homework Time	Prerequisites
☐ Moderate **X Difficult** ☐ Very Difficult	**60 minutes per day*** *This is a general guideline for planning and scheduling purposes. A student's ability level may affect actual preparation time needed.	**District** Completion or concurrent enrollment of Int. Math I **Department** Completion of Int. Math I Please see student background expectations

Course Description

Biology is a college preparatory science course. Emphasis is placed on laboratory work using scientific methodology and research. The course will include the following topics:

- Chemistry
- Ecology
- Cells
- Genetics
- Evolution
- Physiology

Students will explore these topics through discussions, laboratory investigations, teacher demonstrations, and in-class assignments. This course is aligned with the California State Standards in Biology.

Student Background Knowledge:

A student entering College Preparatory Biology should be able to:

7th grade Science Investigation and Experimentation Standards:

- Select and use appropriate tools and technology (including calculators, computers, balances, microscopes) to perform tests, collect data, and display data.
- Use a variety of print and electronic resources (including the internet) to collect information and evidence as a part of a research project.
- Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.

- Communicate the steps and results from an investigation in written report and oral presentations.

8th grade Science Investigation and Experimentation Standards:

- Plan and construct a scientific investigation to test a hypothesis.
- Construct appropriate graphs from data and develop quantitative statements about the relationships variables.
- Apply simple mathematical relationships to determine a missing quantity in a mathematic expression, given the two remaining terms (including speed=distance/time, density=mass/volume, volume=area x height)

Algebra Standards:

- Interpret and use ratios in different contexts to show relative sizes of two quantities, using appropriate notations.
- Graph linear functions, noting that vertical change (change in y-value) per unit of horizontal change (change in x-value) is always the same and know that the ratio is called the slope of a graph.
- Students apply algebraic techniques to solve rate problems and percent problems.

Grading

The grading system is based on weighted percentages. Each assignment will have a point value and be weighed according to the category it falls under. There are three categories; Homework, Laboratory and Projects, Quizzes and Exams. Individual teachers may make slight modifications on the weighted percentages.

Additional Information for Students/Parents

- 10 credits
- Meets UC/CSU subject area "d" requirement
- Meets high school graduation requirement for life science