

LAUSD/USC MAE HIGH SCHOOL
Biology of Living Earth AB
Course Syllabus

Instructor: Mr. Rodriguez

Office Hours: Mondays, Wednesdays – Fridays: 3:35 PM – 4:05 PM (By Appointment Only)

Conference Period: Period 2
Mondays, Alternating Tuesdays (Check School Calendar), Thursdays:
10:10 AM – 11:40 AM

Telephone: (213) 748-0126

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Required Textbook: Nowicki, S. California HMH Science Dimensions The Living Earth, 2020.

Required Materials: Laptop/Chromebook (provided by School), Edgenuity (online program), 3-Ring Binder and or Notebook, Pen or Pencil, Active and Open Mind

Student Teacher: This school year, we are fortunate to have Ms. Shreya Sthothra Bhashyam (Ms. SB) in the classroom. She is currently a candidate for a Master of Arts in Teaching at USC, while also working towards receiving her preliminary teaching credential. Ms. SB will be completing her student teaching through the 9th-grade biology courses. As part of the master's program and her work toward receiving her preliminary credential, she is required to video record some lessons throughout the school year. Video Release Forms will be sent home before the recording begins. Thank you in advance for your understanding and for helping Ms. SB complete her goals.

Course Description:

Biology of Living Earth is a laboratory-based college-preparatory course. This course meets the LAUSD graduation requirement of one year of life science and meets one year of the University of California's "d" entrance requirement for laboratory science. The course will emphasize discussions, activities, and laboratory exercises, which promote the understanding of the concepts, principles, and theories that allow students to understand the natural environment. The course is divided into seven (7) Instructional Segments (IS).

IS 1 Ecosystem Interactions and Energy:

In this unit about living systems, you use models to illustrate the relationships between components of living and nonliving systems. You will use mathematical representations to explain how factors affect population density, distribution, and growth patterns; how limiting factors affect an ecosystem's carrying capacity; and how changes in ecosystems affect ecosystem stability. You will also explore how environmental engineers design and evaluate solutions to environmental problems.

Textbook Correlation: Unit 1 Living Systems

IS 2 History of Earth's Atmosphere and Respiration :

In Unit 1, you learned about the Earth system and how ecosystems and the populations within them maintain stability or change over time. In this unit, you use models to explain how living things break down and rearrange carbon-based molecules through biochemical processes such as photosynthesis and cellular respiration. You construct explanations about changes in matter and energy that occur during cellular respiration, and you use a physical model to show how the composition of gases in Earth's atmosphere has changed over time as life on Earth has evolved.

Textbook Correlation: Unit 2 Carbon in the Earth System

IS 3 Ecosystem Interactions and Energy Flow:

In Unit 2, you learned how living things break down and form different carbon-based compounds in various biological processes and how the absorption and release of energy and matter affect the atmosphere. In this unit, you will explain, analyze, and model the flow of matter and energy through trophic levels using food chains, food webs, and pyramid models. You will model the flow of matter and energy through Earth's spheres, analyze the impacts of human activities on these cycles, and make a self-sustaining ecosystem from which to collect data on the biotic and abiotic factors in that system to explain how energy and matter flow through it.

Textbook Correlation: Unit 3 Ecosystem Interactions and Energy Flow

IS 4 Evidence of Evolution:

In Unit 3, you learned how energy and matter move through and are transformed in ecosystems. In this unit you will describe the changes to Earth's surface over its lifespan, relate the fossil record to the theory of evolution, and characterize different eras based on their major events and abundant organisms. You will construct explanations about the evidence that supports common ancestry and evolution in living organisms and explore the theory of natural selection and how it explains changes in species over time.

Textbook Correlation: Unit 4 Evidence for Evolution

IS 5 Inheritance of Traits:

In Unit 4, you learned about the types of evidence scientists use to study the past of life on Earth. In this unit, you will observe patterns and use models to explain how meiosis produces genetically unique cells; how sexual reproduction, independent assortment, and crossing over increase genetic variation; how traits are passed from parents to offspring; how DNA is the molecule of inheritance; how the language of DNA is translated into the language of proteins and how gene expression is a regulated process.

Textbook Correlation: Unit 5 Mechanisms of Inheritance and Unit 6 Genetic Variation and Evolution

IS 6 Structure, Function, and Growth:

In Unit 5, you learned about how genetic diversity and social behaviors can increase the chances of survival for a population. In this unit, you will use a model to illustrate the role of the cell cycle and cell division in the development and maintenance of multicellular organisms. You will also use models to explain how systems within an organism interact at different levels to carry out functions necessary for life and explain how positive and negative feedback loops help an organism maintain homeostasis.

Textbook Correlation: Unit 7 Structure and Function in Living Things

IS 7 Ecosystem Stability and the Response to Climate Change:

In Unit 6, you learned about cell division and differentiation as well as how cells allow organisms to maintain stable internal conditions in a changing environment. In this unit, you will explore Earth's energy budget, the global distribution of solar energy, and the causes and effects of climate change. You will consider the impacts of human activity on biodiversity and learn about human population growth, habitat destruction, invasive species, and overexploitation. You will evaluate various solutions, including engineering solutions, for

Textbook Correlation: Unit 8 Ecosystem Stability and the Response to Climate Change

Labs:

Appropriate hands-on labs, virtual labs and/or simulations will be used to help meet this requirement of the course. Lab reports will also be assigned when appropriate and will help meet the writing component for this course.

Computer Use in the Classroom and Home:

Students are expected to follow district policy as outlined on the Responsible Use Policy (RUP) for District Computer Systems (BUL-999.11). Failure to uphold these policies may result in restricted access, disciplinary and/or legal actions against students, including suspension, expulsion, or criminal prosecution. In addition, students are not allowed to have food and/or drinks at their desks while working with a laptop. Failure to abide to this rule resulting in damage to any laptop may result in the students being financially responsible.

Cellular Telephones and Other Mobile Devices:

It is the policy (State Assembly Bill 3216) of the Los Angeles Unified to prohibit the use of cellular phones or any electronic mobile device by students on campus during normal school hours. Students are permitted to possess cellular phones, or other electronic mobile devices such as cameras, electronic games, radios, MP3 players, computing devices, tablets, etc. on campus, provided that any such device shall remain turned off and stored in a locker, backpack, purse, pocket, or other places where it is not visible during normal school hours. Students are permitted to use cellular phones or other electronic mobile devices on campus, before and after school or during school activities that occur outside of school hours. For Los Angeles Unified, state and national assessments, students are prohibited access to any unauthorized electronic devices at any time during the entire testing session. Students must comply any time a request is made by school personnel to cease the use of a cellular telephone and/or other electronic mobile device even before or after school. Schools may adopt more stringent cellular phone policies through the School Site Council. Cell phone use on the school bus is for emergency purposes only; driver authorization is required. For more information, you may call Transportation Services at 800 522-8737. Los Angeles Unified is not responsible for lost or stolen cellular telephones or other electronic mobile devices.

Grading Criteria:

Grades will be determined through the accumulation of points throughout the semester and will be based on the following grade distribution:

A	90-100%
B	80-89%
C	65-79%
D	50-64%
F	0-49%

Work Habits and Cooperation:

The cooperation and work habits grades will be based on attendance, participation, and work ethic. The grades for these are as follows:

E	Excellent
S	Satisfactory
U	Unsatisfactory

Assignments:

Due dates will be set for each assignment through Schoology. It is imperative that students complete the assignments by the due date and on time in order to receive full credit. Appropriate point values will be assigned to each assignment based on its scope. Rubrics will be provided when necessary to help the students complete the assignments. Students are encouraged to read and review these rubrics in order to obtain the best possible grade.

Examples of Point Values for Assignments:

Homework:	10-20 Points	Lab Exercises:	25-50 Points
Classwork:	5-20 Points	Lab Reports:	25-50 Points
Chapter/Unit Exams:	75-100 Points	Final Exams:	150-200 Points
Projects:	TBD		

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Homework Policy:

1. All homework assignments are due at the beginning of the period on the due date.
2. Late homework assignments will be downgraded and will be worth only 50% of the total point value.
3. No late homework assignments will be accepted after three (3) scheduled meeting days.
4. If absent, it is the responsibility of the student to make-up any missed assignments. Please review assignments posted through Schoology and/or ask Mr. Rodriguez.

Class Rules:

1. Arrive to class on time and prepared to learn.
2. Do not talk while the teacher is talking.
3. Pay attention at all times and listen to instructions the first time they are given.
4. Do not leave your seat without permission.
5. Always respect the teacher's right to teach and the rights of other students to learn.

It is important that all students adhere to the policies and rules outlined above. Failure to adhere to any of these rules or policies may result in a lower grade, a phone call home, and/or parent conference.

I, _____, have read and understand the policies and class rules outlined above
Student Name Printed
and agree to adhere to them.

Parent Name Printed

Parent Signature and Date

Student Name Printed

Student Signature and Date

Period and Course: _____

Class Rules

In order to create the best learning environment possible, there are several rules that you are expected to follow. They are as follows:

1. Arrive to class on time and prepared to learn.
2. Do not talk while the teacher is talking.
3. Pay attention at all times and listen to instructions the first time they are given.
4. Do not leave your seat without permission.
5. Always respect the teacher's right to teach and the rights of other students to learn.

Breaking these rules will not be tolerated in the classroom. The consequences for not following these rules are as follows:

1st Time:	Verbal warning
2nd Time:	Telephone call to parents and detention during an arranged date and time
3rd Time:	Parent Conference
Severe Clause:	Repeated violations of class rules will result in a parent conference with administrators and possible suspension.