Life Science: Living Environment
P35M Manhattan High School
Principal: Marta Barnett

Instructor: Mr. Tahir **Email:** mtahir2@schools.nyc.gov Course Title: Living Environment

Course Syllabus

Biology is the study of our planet, the processes occurring on it, and how everything fits in our ecosystem.

Regents Biology is a core-based course which ends in a NYS Regents Living Environment Examination. The Living Environment Core Curriculum is expected to prepare students to understand and apply scientific concept principles and theories pertaining to the living environment and recognize the historical development of ideas in science. To attain this, the core addresses seven key ideas: similarity and differences among living and non-living things; inheritance of genetic information; changes of species and organisms over time; the continuity of life; dynamic equilibrium that sustains life; interdependence of plants and animals and their environment.

COURSE OUTLINE

First Term - September through January		
Unit 1	**Unit 2**	**Unit 3**
Five Sciences • Chemistry (Elements, matter, compounds, mixtures and Basic atomic structure) • Earth Science (Ecosystem, the Earth, atmosphere) • Physics (laws of physics, gravity) • Mathematics (negative number, graphs, units of measurement) • Biology	**Scientific Measurement** • Units of measurement • Unit conversion • Scientific Notation • Scientific Method	**Biology classifications** • Kingdoms • Fungi and viruses • 9 processes and autotrophic and heterotopic

Second Term - February through June		
Unit 4	**Unit 5**	**Unit 6**
Nine Processes • Body systems; digestive, respiratory, nervous, endocrine, muscular, circular, lymphatic and skeletal.	**Cell** • Organelles • Cell theory • Enzymes and indicators • pH and its effects on body and enzymes • Inhibitors/activators • Immune system, white blood cells, antibodies • Vaccinations	**Ecosystems** • Biomes • Food webs • Energy pyramid (community relationships) • Cycles of matter including water, nitrogen, carbon and ammonia • Biochemistry/relationships • Pollution, climate change and human being affecting the future of the planet and its biodiversity.

Unit 7	**Unit 8**	**Unit 9**
Reproduction • System overview • STD, protection and different modes of reproduction • Meiosis • Embryology	**Genetics** • DNA/RNA • Mutations • Punnett square • Pedigree chart • Karyotyping • Gel electrophoresis • Scientific Notation • Scientific Method	**Evolution** • Abiotic and biotic, related to factors of evolution • Prokaryotes and eukaryotes • Early life on the planet • Selective breeding • Mutations

COURSE REQUIREMENTS

The basic requirements of this course are as follows:

- Core units (to include parts 1 through 9 above)
- A minimum of 1200 lab minutes.

COURSE MATERIALS

The following materials will be needed in class daily:

Class folder with assignments and guided notes (Non-negotiable)
A simple, inexpensive calculator (will be available in classroom) (scientific calculator is not necessary)
Metric ruler (will be provided)
Pens, pencils, erasers

The following materials may be needed at school and will be provided accordingly:

Textbook, Living Environment Review Book, Graph paper, Stapler

CLASSROOM POLICIES AND PROCEDURES

You are expected to be in class, on time, every day. In the event of absence, it is your responsibility to find out what you have missed. *You are responsible for all homework, tests, and labs.*

Grades: Grades will be calculated according to the following formula:

Exams…….. 25%
Classwork…… 40%
Projects…….……... 15%
Homework…….……. 20%

Tests: There will be at least one comprehensive exam per unit; for some units two. Tests are announced well in advance, a week minimum, of the test date. If you are absent on a test date, you can expect to take the test the day you return to school.

Homework: Homework is given almost daily and is generally due the next day. Homework which is poorly done or contains numerous blanks will receive no credit. If you are absent, you will be required to make up missed homework. Again, it is YOUR responsibility. Homework is due the day after you return from an absence. You will have one day of makeup time for each day you were absent. Of course, the sooner you submit the homework, the better.

Homework may be:
Reading and answering questions in the textbook and/or review book
Lab or fieldwork write-up or Paper and pencil lab
Reaction paper for newspaper article
Viewing a television documentary and answering related questions
Project or research paper

Lab Reports: Attendance at lab, as well as completion of written reports, is MANDATORY for Regents science. If you miss lab, it is your responsibility to arrange to make it up, and makeup must occur within two weeks of your return. Lab reports are due at the completion of the laboratory session. They receive a pass/fail grade or a letter grade. Lab summaries or reflection papers may be assigned for homework

Projects: Several projects and or reports will be assigned throughout the year. The three-day rule also applies to projects and reports.

Preparation and Cooperation: You are expected to come to class, on time, prepared with the materials you need and with any work which is due. You will be better able to contribute to discussions and ask relevant questions if you have done the required work and have been attentive in class.

Lateness: It is extremely important to be on time for each class as work begins immediately. You must be in your seat, beginning your work when the bell rings. There will be repercussions for students who are not in class and seated on time, and the class work grade will be affected.

Heading: A heading is required on all submitted work. It must have the following format:

Name (first and last) Date
Class number

Suggestions for Improving Study Habits:

- Students need to do more than just "go over" their notes or the chapter. They must read for understanding.
- Students must be familiar with the content, vocabulary, definitions and formulas and must make use of the reference tables.
- Students are encouraged to use note cards on which to highlight key points and vocabulary words.
- Being attentive in class and doing all work assigned is crucial to success. Also take lab seriously as content knowledge and process skills are acquired through the lab experience.
- Homework is important in reinforcing the work done in class or preparing for work to be done. Homework must be done on time to derive the most benefit.

Electronic devices: Electronic devices (cell phones, CD players, beepers, IPODS, etc.) may not be used anywhere in school, at any time. If they are seen, used, or heard, they will be confiscated and held by the dean or assistant principal for a predetermined period of time.

LAB POLICY

- Students will observe all safety rules and use appropriate safety equipment as directed. Unsafe behavior may result in a reduced grade, no credit at all, or exclusion from lab.
- Students will stay seated during labs. Questions will be answered one student at a time after raising hand.
- Lab groups are not negotiable. You will be assigned lab partners.
- Lab reports are due at the end of the lab period.
- Lab folders containing graded labs will be stored at school.
- Attendance at all lab classes is crucial as the time allotted for after-school lab make-up is limited.
- The New York State Education Department mandates the successful completion of a minimum of 1200 minutes of lab time in order to sit for the Regents exam. A successful lab is a passing lab.
- In this Regent's class every student is expected to complete a minimum of 1200 minutes of satisfactory laboratory time in order to be admitted into the Regent's Examination. Failure to complete the required 1200 minutes will result in the student being barred from taking the Regent' Examination. Every student is expected to qualify and take the Exam.

Some activities performed outside the lab periods may count toward the lab requirement. In other words, labs are not solely performed in the assigned lab periods. They may be done in class, as fieldwork, projects, or sometimes as homework assignments.

Please Note: As per the New York State Education Department regulations, students who do not have the mandated 1200 minutes of satisfactory lab time cannot take the Regents exam.

We're looking forward to an exciting, enriching school year and we welcome you to Regents Earth Science at P35M.

PLEASE RETURN THIS PORTION TO YOUR TEACHER

I have read the attached course outline, goals, expectations, and evaluation criteria for REGENTS Living Enviroment and have discussed these requirements and responsibilities with my parents/guardians.

In addition, I understand and accept the minimum laboratory requirement, 1200 successful lab minutes with accepted reports. If I do not meet these requirements, I realize I will not be allowed to take the New York State Regents Exam in Earth Science.

Student Name: _____ Date_____ Class_____

Parent/Guardian Signature_____ Email:

Phone Number: _____