

P.S. 035 Manhattan High School Course Syllabus

Teacher- Ms. George

Course Name- Living Environment

School Year 2017-2018, term 2, sections 1&2

Grading Policy:

Participation/Behavior	40%
Classwork	30%
Assessments (Tests, quizzes. Projects)	20%
Homework	10%

Course Description:

The Living Environment Core Curriculum is based on Standard 4 of the Commencement level New York State Learning Standards for Mathematics, Science, and Technology (Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science); building on the concepts covered in the elementary and intermediate levels. It incorporates scientific inquiry from Standard 1 (Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.) The key concepts covered in this course are Scientific Method, Skills, and Tools, Cellular form and function, Reproduction, and Homeostasis & Immunity.

Learning Objectives:

Unit 1 Scientific Method, Skills, and Tools

- design and carry out a controlled, scientific experiment. State an appropriate hypothesis. Differentiate between independent and dependent variables. Identify the control group and controlled variables. Collect, organize and analyze data. Organize data through the use of data tables and graphs. Formulate an appropriate conclusion

and generalizations from the results of an experiment. Recognize assumptions and limitations of the experiment.

Unit 2 Cellular form and function

- Important levels of organization for structure and function include organelles, cells, tissues, organs, organ systems, and whole organisms.
- The organs and systems of the body help to provide all the cells with their basic needs. The cells of the body are of different kinds and are grouped in ways that enhance how they function together.
- Inside the cell a variety of specialized structures, formed from many different molecules, carry out the transport of materials (cytoplasm), extraction of energy from nutrients (mitochondria), protein building (ribosomes), waste disposal (cell membrane), storage (vacuole), and information storage (nucleus).

Unit 3 Reproduction

- observe and describe the variations in reproductive patterns of organisms, including asexual and sexual reproduction
- explain the role of sperm and egg cells in sexual reproduction
- observe and describe developmental patterns in selected plants and animals (e.g., insects, frogs, humans, seed-bearing plants)
- observe and describe cell division at the microscopic level and its macroscopic effects

Unit 4 Homeostasis & Immunity

- The organs and systems of the body help to provide all the cells with their basic needs. The cells of the body are of different kinds and are grouped in ways that enhance how they function together.
- Important levels of organization for structure and function include organelles, cells, tissues, organs, organ systems, and whole organisms.

Unit 5 Review

- understand the course objectives for the topics in Living Environment 1 and 2. Key topics include Microbiology, Cellular form and function, Reproduction, and Homeostasis & Immunity.

Classroom Expectations and Requirements- In this class you will work towards accomplishing 3 very important goals-Developing a love for science and learning, passing this class, and preparing you for your future careers and/or college. We have very high expectations for you and know that with hard work, you can succeed in this class. You are required to come to class on time, do all classwork and homework assignments, and participate in a positive manner

Positive Phone Calls- We will select one student a week (from the 5 classes). This person will have followed class rules and completed assignments. These students will receive a positive phone call home and be invited to a pizza party at the end of the month. We will work very hard with you and expect each of you to work just as hard. We look forward to a successful year.

Attendance policy-students should come to class on a regular basis, however they will be allowed to make up work they have missed within a reasonable period of time. Weekly attendance is calculated into the participation portion of the grading policy.