

DOBBS FERRY MIDDLE SCHOOL
Dobbs Ferry, New York 10522

COURSE OUTLINE

SUBJECT: Science

GRADE: 7

Offered: Full Year

Type of Course: Required

Life Science is the focus of the seventh grade curriculum. Throughout the year, students will learn about four main topics: Diversity of Life, Genetics, the Human Body and Ecology. In addition, students will continue to work on skills such as utilizing the Scientific Method, graphing, interpreting graphs/diagrams, making inferences and analyzing data. After this year of study, students will enroll in either General Eighth Grade Science or Regents Earth Science.

Anticipated student outcomes: *By June of this year, students in this class should be able to understand and have knowledge of:*

Diversity of Life: *Cellular Biology*

Know the parts of the microscope

Slide preparations and measurement of magnified objects (mm)

Microscopic organisms

Cell parts and functions

Plant vs. Animal cells

Classification of living things overview; protists, bacteria, fungi, plants and animals

Human Body Systems: *Anatomy and Physiology*

Overall organization of the human body, cells, organs and systems

Skeletal System

Muscular System

Cardiovascular System

Respiratory System

Nervous Systems

Frog Dissection*

Genetics and Heredity

Genes and Chromosomes

Cell division; mitosis and meiosis

History of genetics

Mendelian genetics

Current topics in genetics

Punnett Square

Sexual vs Asexual reproduction

Environmental Studies: *Ecology*

Biological cycles

Ecosystems

Food Webs and Food Chains

Ecological Interactions

Different Biomes

Environmental threats

Concept of recycling

Materials required:

1. Composition notebook
2. Agenda book
3. Pen, pencil, color pencils and glue sticks

Criteria for grading:

Summative assessment: Approximate weight

1. 40% Tests and Quizzes
2. 15% Homework
3. 35% Labs and Projects
4. 10% Class Participation

Outline developed by: Science Department

Date: Spring 2019

** Students who have a moral or religious objection to dissection have the right to opt out of dissection activities, provided that the student performs an alternate project approved by the student's teacher. Please note the objection must be substantiated in writing by the student's parent or guardian.*