

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

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. Binder with science section
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 2016