P.S. 035 Manhattan High School

Course Code: SES22QQB

Syllabus for: Earth Science 2

Teacher Name: Mrs. Dubizh

Year and Term: 2017-2018

Learning Standards:

S3-Earth and Space Science Concepts
S4- Scientific Connections and Understanding
S5- Scientific Thinking
S6- Scientific Tools and Technologies
S7- Scientific Communication
S8- Scientific Investigation

Course Description:

Earth Science is the study of the physical Earth, its atmosphere and the universe. Earth Science has many interesting and practical applications. Some scientists study the interaction between the sun and the Earth's atmosphere. Many scientists use their knowledge of the air pressure, winds and air currents to study patterns of weather and climate and devise better ways of predicting and responding to natural disasters. The impact of human activity on the environment and how to design methods to protect the planet is an important consideration. This course will focus on the following areas of Earth Science: Oceans and Atmosphere, Meteorology, and various topics in Astronomy, including the Sun-Earth- Moon System, the Solar System and Stars and Galaxies.

Unit Map:

Mapping our Geo-history

Tectonic Plates –Pangea
Geo-History
- Time
- Fossils
- Radioactive Dating

Mapping the Landscape
- Key / Legend
- Contour lines
- Materials

Geothermal lines

Earth's Air

Atmosphere
The Ozone layer
Ultraviolet radiation
Conduction
Convection
Condensation
Coriolis effect
Jet streams

Earth's Water

Oceans and salinity
Surface currents
Density currents
Oceanography

- Uses of the ocean for survival

Meteorology

Weather

- Temperature
- Wind
- Humidity
- Atmospheric pressure

Climate

- Tropics
- Polar zones
- The greenhouse effect
- Global warming

Astronomy

Earth's rotation
Magnetic field
Moon phases
Solar eclipses
The Solar System
Nebula Theory
Stars and Galaxies

- Big Bang Theory
- Nebula Theory

Stars and Galaxies

Course Materials:

Text:

Glencoe/McGraw Hill - Earth Science, 2008

Feather, Snyder, Zike, et al.

Workbook:

Globe Fearon / Science Workshop Series:

Seymour Rosen - Geology, 2000

- The Universe, 200

Grading Policy:

25% Classwork – Focus and be prepared to actively participate. If you are absent, try to get the class notes from another student and ask me for any handouts or worksheets that were given. You ARE responsible for material that we go over in class that you miss.

30% Quizzes/ Exams - There will be several vocabulary quizzes and unit tests and a mid-term exam covering all of the material covered through the semester. Make-up exams will be available.

20% Homework - Do your homework every night. If you don't understand something, write down your questions and ask them first thing when you come in. Make an effort to do as much as you can before you come in to class.

15% Labs – There will be 30 labs that need to be completed. Your grade will reflect the care which you take to do the lab and the quality of the written assignments.

10% Special Project(s) - Throughout the semester you will have projects that focus on creating models, maps, and diagrams. In addition, you will also have an optional "extra credit" research paper on a topic of your choice.