

**EARTH AND SPACE SCIENCE
HELLGATE HIGH SCHOOL
BRYDEN**

SEMESTER #1

1ST QUARTER

SCIENCE SKILLS: Skills necessary for laboratory investigations. (Time – 2 weeks)

Topics covered:

1. Measuring – mass, volume, density, and temperature.
2. Graphing – bar, line, pie, and scatter plot.
3. Scientific method.

ASTRONOMY: The study of the universe. (Time – 7 weeks)

Topics covered:

1. Atoms and Chemistry
2. The Big Bang
3. Galaxies
4. Time and Distance
5. Stars and the Sun
6. Electromagnetic spectrum
7. Laws of motion and Gravity
8. The Planets
9. Comets, meteors, and asteroids
10. Space History and Technology

2ND QUARTER

METEOROLOGY: The study of Earth's atmosphere. (Time - 7 weeks)

Topics covered:

1. Composition and Structure of the Atmosphere.
2. The Water Cycle
3. Weather
4. Weather maps / Predicting
5. Climate

OCEANOGRAPHY: The study of the Earth's oceans. (Time – 3 weeks)

Topics covered:

1. Sea Water
2. Ocean currents
3. The Sea Floor

SEMESTER #2

3RD QUARTER

PLATE TECTONICS: The study of the active crust of the earth. (Time – 5 weeks)

- Topics covered:
1. Evidence for Plate Tectonics
 2. Plate Boundaries
 3. Earthquakes
 4. Volcanism

ROCKS AND MINERALS: The study of the composition of the Earth's crust. (Time – 5 weeks)

- Topics covered:
1. Physical and Chemical Properties
 2. Identification
 3. Formation
 4. The Rock Cycle
 5. Economic Uses

4TH QUARTER

WEATHERING / EROSION: The breakdown and transport of earth materials. (Time – 4 weeks)

- Topics covered:
1. Physical and Chemical Weathering
 2. Agents of Erosion; Wind, Water, Glaciers, and Gravity
 3. Landforms

PALEONTOLOGY: The study of past life. (Time – 3 weeks)

- Topics covered:
1. Geologic Time
 2. The Fossil Record
 3. Evolution through Time

NATURAL RESOURCES: Earth materials which are of use to people. (Time – 3 weeks)

- Topics covered:
1. Renewable and Nonrenewable Resources
 2. Mineral Resources
 3. Energy Resources
 4. Pollution Problems
 5. Recycling/ Solutions