Earth/Space Science

Description of Average Weekly Outside Requirements (may vary by teacher)

Main Topics
(What main ideas/concepts are covered):

- Composition of Earth
- History of Earth
- Plate Tectonics
- Weathering and Erosion
- Water Systems
- Atmosphere and Climate
- Solar System
- Stars, Galaxy and Universe

Rationale
(Why a student should take this course):

Through this course, students will better understand how the world works by examining the science of matter. They will get an introduction to the sciences of Physics and Chemistry to better prepare them for future courses in the STEM fields.

Reading
(Text, document, etc.):

- Students will read from the textbook, approximately 5-10 pages at a time, between 1 and 2 times per week
- Students will analyze and answer 2-10 vocabulary and free-response questions once per week

Written
(Terms, questions, outlines, free response, etc.):

- Students will solve 2-3 problems from the book between 1-2 times per week

Grade Composition
(How grades are determined):

- Tests
- Quizzes
- Classwork
- Homework
- Projects

Required Skills
(Skills necessary to be successful in this course):

- Reading/Comprehension
- Work Ethic
- Math Skills – Algebra 1A
- Basic Writing

Skill Development
(Skills developed in this course and how):

Critical Thinking – Students will apply their knowledge of earth/space science to observe, analyze, and explain a variety of situations presented through word problems and demonstrations

Problem Solving – Students will understand how to identify a problem, determine the relevant information, and apply earth/space concepts to answer questions in regards to the presented problem

Text analysis – Students will be able to parse a document and/or lecture for the relevant information

Sample Textbook Excerpt:

Because magma is less dense than solid rock, magma rises through the crust toward the surface. As the magma moves upward, it pushes into, or *intrudes,* the overlying rock. Because of magma's high temperature, magma affects surrounding rock in a variety of ways. Magma may melt surrounding rock, or it may change the rock. Magma may also fracture surrounding rock and cause fissures to form, or it may cause the surrounding rock to break apart and fall into the magma. Rock that falls into the magma may eventually melt, or the rock may be included as foreign pieces within the new *igneous rock*, which is rock that forms when magma cools.