

## **CURRICULUM - GRADE 7-8**

### **Earth Science**

#### **Earth Science** (Glencoe Science)

##### Geology, the Environment, and the Universe

Earth Science 7-8 continues the introduction of students to earth processes. The course explores the interactions between Earth's biosphere, geosphere, atmosphere, and hydrosphere, with the objective of demonstrating how our physical environment is controlled by geological, biological, and human forces. Earth Science 7-8 aligns to the National Science Education Standards with correlations in each chapter. The correlations are designated according to a NSES Table that includes: unifying concepts, developing the abilities and understandings to do scientific inquiry, discuss chemical reactions, describe the structure of the atom and matter, explain the origin of the earth system and the universe, develop an understanding of science and technology in local, national, and global challenges.

Additionally, five themes are emphasized. They are: Systems, order, and organization; evidence, models, and explanation; change, constancy, and measurement; evolution, equilibrium, form, and function. A double period laboratory, one day each week, is used to enhance student understand of the following core Earth Science topics; Composition of and Processes of the Earth; The Atmosphere and the Oceans; The Dynamic Earth; Geologic Time; Astronomy.

Earth Science 7-8, over one academic year, spans 31 chapters, 6 formal labs, 12 mini-labs, which include critical thinking, practicing scientific methods, and organizing information.

### **Biology**

#### **Biology** (Glencoe)

##### The Dynamics of Life

Biology 7-8 engages students' prior science knowledge and experience by bringing learned concepts to life. Strategies include: helping organize and process many key concepts, improving reading comprehension, identifying the need to create a concise summary of important unit topics that can be used in review, use unit assessments that provide students a variety of standardized test practice as well as essay question answer structure. Tests are aligned to The Princeton Review and the National Science Education Standards. Laboratory activities supplement and introduce a variety of Biological topics that afford students opportunities to apply their own original ideas, along with prescribed techniques that enrich learning.

Additionally, a variety of biological concepts are approached from a molecular point of view. Topics include characteristics of organisms, microscopes, molecular and cell chemistry, cell structure and function, cell energy use, cell division (mitosis and meiosis), genetics, DNA structure and function, developmental theories, structure, and function in plants, animals, and humans.

Biology 7-8 is a one academic year, six class periods per week course covering eight units and thirty-two chapters, and is designed to prepare students for high school Honors Biology. Approximately six formal labs, ten mini-lab activities, and two computer-based research projects are completed throughout the school year.

### **Social Studies**

#### **The American Nation** (Prentice Hall)

Students focus on American History in both 7<sup>th</sup> and 8<sup>th</sup> grades, beginning with early exploration and ending with present-day events and issues. Students use their textbooks as well as primary resources to read, analyze, and interpret the events that formed the nation. Current events are also a key component of the class. Every other Friday, students are responsible for bringing in either a newspaper or magazine article. Students are required to write summaries of their articles and either present them to the class or participate in a group activity.