

Science Grade 8 H/PreAP Syllabus

This accelerated course is designed for the student who has demonstrated the ability and interest in science above and beyond that which is offered in the on-level Science Grade 8 course. This course will focus on earth and space science with an integration of chemistry, physics and life science. Use of laboratory equipment, safety rules, measurement techniques, graphing, and interpretation of data will be stressed. Preparing the student to enter advanced high school sciences will be emphasized. Independent research is a requirement of honors science.

Interactions within the Universe (73 instructional days)



Activities in this unit focus on the structure and components of the universe and the cyclical nature and relationships that exist among these components. Major topics include chemistry, components of the universe, and components of the solar system. This unit culminates with a performance assessment where students will construct a written product, 3D Model/scientific drawing, and develop a game to demonstrate knowledge from the chemistry, universe, and solar system units.



Dynamic Earth (82 instructional days)

Activities in this unit focus on understanding cycles, patterns, and natural geological events of the Earth. Major topics include weather, atmosphere, plate movement and topography. Students will explore physics and energy as they examine the relationships between force, motion, and energy and their impact upon organisms and their environments. This unit culminates with a performance assessment where students “discover” a hypothetical planet with characteristics similar to Earth and use their knowledge of weather and geologic processes to communicate information about the past, present, and future of this new planet.