



High School Science Core Curriculum

Earth Science

This course focuses on the study of space, geologic structures and forces, the waters on our planet, and the atmospheric forces that shape our world. Students will explore the Earth's spheres including the geosphere, hydrosphere, cryosphere, atmosphere, and the cycles of the Earth such as the water and carbon cycle. Students will learn about scientific inquiry, geologic time, space exploration, the solar system, and the universe.

Grade: 9 **Length: 2 semester** **Prerequisite: None**

Anatomy and Physiology

This course provides the student with the structure and function of the human body and mechanisms for maintaining homeostasis within it. Topics include the study of cells & tissues, along with the skeletal, muscular and nervous systems. Emphasis is placed on the integration of systems as they relate to normal health.

Grade: 10 **Length: 2 semester** **Prerequisite: None**

Chemistry/Physics or Chemistry/Physics (H)

This laboratory science course consists of one semester of introductory level Chemistry and one semester on introductory Physics which is structured to teach and utilize the scientific method and metric measurements in all units. Emphasis is placed on inquiry-style learning and development of skills such as observing, inferring, data collecting, and graphing.

Grade: 11 **Length: 2 Semesters** **Prerequisites: None**

Physics (H)

This course provides a strong foundation in study of matter, energy and the rules that govern the natural world. Students will learn and apply concepts in this course to real-world situations and the other sciences through laboratory investigations and other activities. Topics include measurement, motion, forces, gravity, momentum, work, energy, states of matter, sound, light, the electromagnetic spectrum, electricity and magnetism.

Grade: 11 or 12 **Length: 2 Semesters** **Prerequisite: none**

AP Biology (AP)

This course will examine the fundamental principles of living organisms including physical and chemical properties of life, cellular organization and function, the transfer of energy through metabolic systems, cellular reproduction, the classification of living things, and the six kingdoms of life. A college-level text will be used and this course will be geared towards preparing students for the Advanced Placement exam at the end of the year.

Grade: 12 **Length: 2 semesters** **Prerequisite: Anatomy & Physiology Or
Biology**

AP Physics (AP)

This course will take a more in-depth look at the topics covered in the introductory physics course, with a heavy emphasis on the mathematical laws that govern the various theories. Students will utilize concepts they learned in both chemistry and physics in order to gain a deeper comprehension of the laws that govern the physical world. A college-level text will be used and this course will be geared towards preparing students for the Advanced Placement exam at the end of the year.

Grade: 12**Length: 2 Semesters****Prerequisites: Physics (H), Algebra II,
Geometry**