

ROSLYN MIDDLE SCHOOL
Seventh Grade Science

General Description of the Course

The seventh grade science curriculum presents a thorough introduction to the physical sciences. The scientific method and scientific theory are applied to hands-on laboratory and interdisciplinary activities. Safety is stressed. Human values are discussed as they relate to the applications of physical science to the world. They will come to appreciate the applications of science in the world through the studies of technological issues, such as pollution, and through the study of current events. A thorough understanding of the process of scientifically critical and creative thinking will be fostered.

Major Topics Covered

- ★ Use of scientific apparatus (graduated cylinders, triple beam balances)
- ★ Laboratory data collections, graphing, and writing
- ★ Metric System
- ★ Properties of matter (mass, volume, and density)
- ★ States of matter
- ★ Atomic theory (atom)
- ★ Periodic Table and properties of elements
- ★ Chemical properties of matter (chemical reactions)
- ★ Consumer chemistry
- ★ Energy (sound, heat, nuclear, chemical, mechanical, kinetic and potential)
- ★ Energy sources and alternatives (renewable and nonrenewable)
- ★ Electromagnetic theory (static electricity, current electricity, magnetism, electromagnetism, and electromagnetic spectrum.)
- ★ Motors and generators
- ★ Simple Machines
- ★ Conservation

Expectations

Students will be expected to complete quizzes, test, laboratory work and reports, and any projects assigned. Homework will be given on a regular basis. There will be a final examination.

Grading

Grades will be based on criteria reflecting achievement on major and minor tests, authentic assessment instruments, final examinations, the quality of laboratory reports, the amount of effort which a student displays, the quality of classroom work, the timely return and the accuracy of homework, and the degree of classroom participation.

Students will progress from this course to eighth grade science, where they will round out their Middle School explorations in the life and physical sciences.