

Physical Science

Course Number: SC1114

Grade level: 7–9

Credits: 1.0

Prerequisite Courses: None

Course Description

Encompassing the branch of science that studies nonliving systems, SC1114 is an exciting high school-level course that inspires students to explore key concepts and theories, each of which explains and/or models a particular aspect of the behavior of nature. Students enrolled in this two-semester course examine the chemical building blocks of our physical world and the composition of matter. Additionally, students explore the properties that affect motion, forces, and energy on Earth. Building on these concepts, the course covers the dynamic properties of electricity and magnetism and the effects these phenomena exhibit on the planet. A cumulative study of how each of these concepts elicits reactions across the solar system rounds out this dynamic course.

Course Objectives

Throughout the course, you will meet the following goals:

- Compare and contrast the structures and behaviors of types of matter like solids, liquids, and gases
- Describe the characteristics and behaviors of waves, sound, light, electricity, magnets, and simple machines
- Relate the components of motion, force, and energy by applying Newton's Laws
- Model and describe components and features of Earth, the solar system, and the universe and determine the forces and movement that shape them

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, e-mail, chat, and system announcements. Through this communication with your teacher, you will monitor your progress through the course and improve your learning by reviewing material that was challenging for you.

You will also communicate with classmates, either via online tools or face-to-face, as you do the following:

- Collaborate on projects
- Ask and answer questions in your peer group
- Develop speaking and listening skills

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Assignments	10%
Labs	0%
Lesson Quizzes	20%
Unit Tests	50%
Cumulative Exams	20%
Additional	0%

Scope and Sequence

When you log into the Virtual Classroom, you can view the entire course map, which provides a scope and sequence of all topics you will study. Clicking a lesson's link in the course map leads to a page listing instructional activities, assignments, and learning objectives specific to that lesson. The units of study are summarized below.

- Unit 1:** The Nature of Science
- Unit 2:** Chemical Building Blocks
- Unit 3:** Motion, Forces, and Energy
- Unit 4:** Waves, Sound, and Light
- Unit 5:** Electricity and Magnetism
- Unit 6:** Our Universe, Our Galaxy, Our Earth