

# Canyon Crest Academy: Physics

Level of Difficulty	Estimated Homework	Prerequisites
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- Moderate  
 Difficult  
 Very Difficult

60 minutes per day\*

\*This is a general guideline for planning and scheduling purposes. A student's ability level may affect actual preparation time needed.

## Department

Completion of Integrated Math 1

## Course Description

In this NGSS aligned course sequence, the story of physics moves from observable phenomena (motion and forces) to the force fields that govern them (electric, magnetic, and gravitational). The Earth and Space Science topics of cosmology and plate tectonics are embedded into this scope and sequence and provide a context for the application of physical science concepts.

In quarter A, students gain an in depth understanding of forces and how they relate to motion, momentum, and energy. Students apply these forces to real world applications. Students apply their learning of dynamics, momentum, & energy in the context of Plate Tectonics.

In quarter B, students begin by investigating mechanical waves connected to energy and plate tectonics. Application of forces and motion concepts are demonstrated in physics build activities. Fundamentals of electricity and magnetism are demonstrated by modeling electric and magnetic fields and building related technology such as motors and generators. Students will then examine the relationship between waves and wave technology by examining how the properties of electromagnetic waves allow us to communicate and learn about the world. As a conclusion to the quarter, students apply their knowledge of light (an electromagnetic wave) to investigate how astrophysicists study the origin of the universe and the life cycle of stars.

## Grading

The grading system is based on weighted percentages. Each assignment will have a point value and be weighed according to the category it falls under. Individual teachers may make slight modifications on the weighted percentages.

Category	Weight
Homework/Class work	20%
Laboratory/Projects	30%
Quiz/Exams	50%

## Links

CCA Science Homepage <http://teachers.sduhsd.net/ccscience>

Next Generation Science Standards <http://www.nextgenscience.org/>

## Supplemental Information

10 unit course

Meets UC/CSU subject area "d" requirement  
Fulfills graduation requirement in physical science