

Algebra 1 Course Project

Introduction

Work with a partner or a group. Choose one of the following projects to complete or create your own. These projects are a fun way to showcase your ability to apply the mathematics learned throughout this course to a real-life situation.

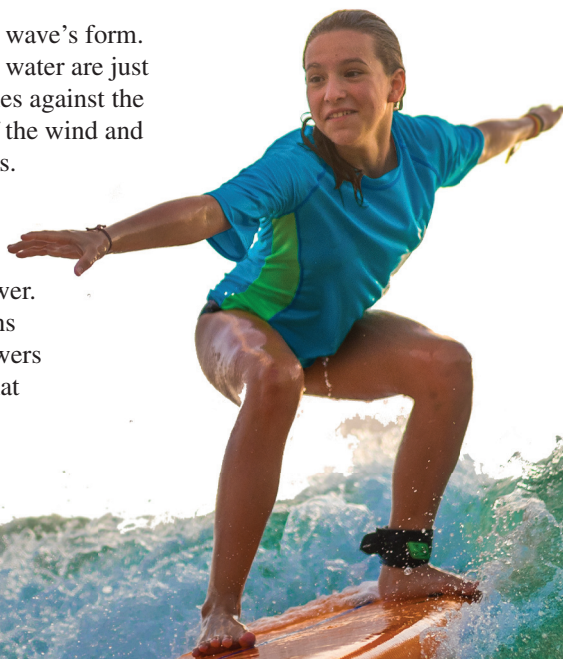
Your project will require you to be creative. It may involve conducting research, incorporating factual information, or imagining and using fictitious ideas and situations. You will work on your project throughout the course, incorporating relevant mathematics from multiple chapters and sections. Possible formats for your project include, but are not limited to: a written report, slide presentation, video, website, or webinar.

Cocoa Beach Pier

The Cocoa Beach Pier is known as the “Surfing Capital of the East Coast,” and is a huge center for surfing activity. Surfing actually involves a bunch of math!

Waves are what allow people to surf, and many factors affect a wave’s form. Wind speed, travel time, and the distance wind travels over the water are just three of the factors that influence wave size. How a wave crashes against the shoreline or breaks mid-ocean is influenced by the direction of the wind and the shape of the ocean floor. Tides also affect surfing and waves.

Research the mathematics of surfing and some surfing facts specific to Cocoa Beach. Use what you learn to choose a topic and generate a driving question that you will seek to answer. Use factual information or invent fictitious stories and situations based on real-life information to create a presentation that answers your question and explains how waves and surfing relate to what you are learning in Algebra 1.





Save the Animals

A species is *extinct* when there are no members of that species alive anywhere in the world. A species that is *endangered* or *threatened* is one that is at the risk of extinction due to its small or decreasing population. Disease, predators, damage to habitat, and other hazards can lead to a species becoming endangered or threatened. There are many endangered and threatened species that are found only in Florida.

Research endangered and threatened species in Florida. Find data that describe changes in those species' populations and habitats over time. Use what you learn to choose a topic and generate a driving question that you will seek to answer. Use factual information or invent fictitious stories and situations based on real-life information to create a presentation that answers your question and explains how endangered or threatened species relate to what you are learning in Algebra 1.

Vacation Time

You are planning a multi-day trip to one of the many popular amusement parks in Florida. Although not the first thing many people would consider, planning a trip requires a significant amount of math.

Major parts of a trip include how to get to your destination, lodging accommodations, transportation between your lodging and the park, ticket prices, and meal costs. Other aspects involving math are line wait times, height requirements, walking or travel time between rides, park operating hours, and crowd size. The features of specific rides can also be described using math.

Research an amusement park that you would like to visit. Be sure to consider the features described above, along with anything else you find interesting about your destination. Use what you learn to choose a topic and generate a driving question that you will seek to answer. Use factual information or invent fictitious stories and situations based on real-life information to create a presentation that answers your question and explains how planning a trip to an amusement park relates to what you are learning in Algebra 1.



