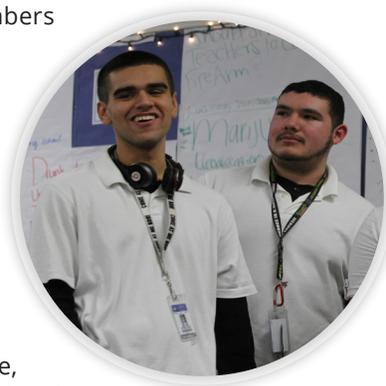


# – eduprojects: mathematics –

All of our projects are built to the Common Core State Standards to help educators teach the skills students need for success in college, careers and life. Educators, students, and experts team up on project work and incorporate 21st-century learning with today's technology.

## THE CASE OF THE IRRATIONAL ZOMBIES

Rational and irrational numbers have different properties and characteristics. In this project, students address the question: ***How can data, functions, graphs, and other math models be applied to real and fictional settings?*** To set the stage, students investigate reports of a zombie invasion! To prepare, students will review rational and irrational number concepts, and delve into ways to use math to model events. Then, they will write a Zombie Survival Manual. The manual will address several elements including zombie population, movement, and locations. The core of the manual will be equations, expressions, and functions that help humans understand, avoid and perhaps even escape the zombie invasion!



## SUDDEN MATH SLAM!

Mathematical thinkers see patterns, logic, and other types of math in the world. In addition, math can be a key tool for building confidence and skills usable in any career. After reviewing different ways to connect math and the world, consulting math playlists and other resources, and discussing mathematical ideas, students will write three illustrated pieces connecting mathematics and the real world. One piece will focus on an expression or equation, another on a function or geometry, and a third is free choice. Students get feedback on these pieces and choose one to present at a Sudden Math Slam event. When they complete this project, the students will be able to answer the question: ***How does math help me make sense of the world?***

## PYTHAGORAS WANTS A PLAYLIST, PLEASE

When you throw a party, you put together a playlist of songs to get the party started, get guests excited, and to express yourself! In this project, students answer the question: ***What's the best playlist to teach the Pythagorean Theorem?*** The Pythagorean theorem occupies an important place in mathematics. One way of understanding key ideas in math

is to read, view, discuss, and create resources about the key ideas. After researching the Pythagorean Theorem, its proofs, value, and applications, students create a Pythagorean Theorem playlist for use at your school. Each group's playlist will have at least ten annotated items half of which are created together. The students create at least one video in the playlist, that includes a way to test students' understanding of the content selected. Students will present their playlist to a panel and make sure we all understand the Pythagorean Theorem.

## HOW GREEN IS MY SCHOOL?

***How can you use mathematical practices and modeling to bring about real-world change?*** You may have seen or heard about 'green' buildings. These buildings are created with recycled materials and use very little nonrenewable energy for heating, cooling, and lighting. Students will consider the inputs and outputs of their school as a system and then audit the school's energy usage and recycling practices and present their written audit report and companion multimedia presentation to their school and invited guests.

## DESIGN A MATH APP

The term 'app' is less than 10 years old but has taken the world by storm. Programs and apps help us communicate, learn, teach, and plan. There are apps that help us store information, check the weather, and do just about anything that humans can imagine. The project is to design an app to teach a mathematical concept and related skills. After completing this project, students will be able to answer the question: ***How can an app help me (and others) learn mathematics?***

## BUSINESS NOT AS USUAL

***How does mathematics help drive business funding decisions?*** Businesses, households, organizations and even countries simply do not run without math. Mathematics helps to predict what customers want and what they'll pay for. It is very useful for planning purposes as it helps estimate costs and compute revenues. The fictitious What's Cool Business Group is challenging your students to create and present an effective, persuasive business plan for a dream product or service. Students will present a business plan in both written and multimedia formats and try to persuade a community group to recommend funding their idea.

