Note to Teacher:

This activity is meant to build your students' awareness of math after high school. Most high school students have a concept of mathematics that is based solely on the math they have learned in school. Try introducing them to the variety that exists in math after high school. Students do not often realize that there are two distinct branches to choose from when selecting a course of study in mathematics. They may find that if they already have mentally "ruled out" majoring in math, they were thinking of only one side of the spectrum and have not considered fields in the other category of mathematics.

Have your students do some research into fields of mathematics that are studied in college. Introduce your class to the distinction between Applied Math and Theoretical Math. If you choose to, you can follow up your discussion with the worksheets provided.

The goal is for students to say "Hey, I actually LIKE all the types of math on THIS side of the chart" (in one category or the other). Your classes may become aware of topics in mathematics beyond what they have already been exposed to.

Theoretical Versus Applied Mathematics

Determine whether each situation qualifies as Applied Math or Theoretical (Pure) Math and label the top of each box accordingly.

	Pi has been calculated up to over a trillion digits.

	A worker for a political candidate analyzes data and uses statistics to predict results of elections and target voters using demographics.

	A civil engineer uses the Pythagorean Theorem in the construction of a highway bridge.

	A video game developer uses vector geometry and linear algebra to create a 3D world.

	An architect uses Calculus when working with the surfaces of a curved wall in a building design.

	A mathematician works to measure the "consistency strength" of topics in mathematical proof theory to start to see if a theory is logical or if it has inconsistencies.

Write your own examples for each category. You may need to do a little research. Try to come up with at least five situations for each.

Applied Mathematics

Pure/Theoretical Mathematics

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