

Mastery Project - Making Connections

The word "mathematics" comes from the Greek word mathematike which means "to learn." In the beginning the word "math" meant learning anything and everything. In our class we've been learning that math is connected to everything. For the mastery project this semester each student will make a 5-10 minute presentation on a topic that somehow relates to math. Presentations can include videos, slide shows, experiments, games, discussions, visual displays, etc. Each student needs to present on a different topic - the first to sign up get to choose their topic first...

Grading rubric for mastery project - this project is worth a total of 50 points broken down as follows:

	Excellent - 10 pts	Acceptable - 7 pts	Hmmmm - 0-5 points
Choose date and topic Due ____	Student chose topic and date for presentation on or before _____	Student chose topic and date for presentation within a week after due date -	Student chose topic and date for presentation after _____
Presentation - On time Due : scheduled date of presentation	Student is prepared to present on scheduled date	Late, but within a week of scheduled date.	More than a week late.
Presentation - Preparation Due: scheduled date of presentation	Student spent at least 2 hours studying and preparing for project	Students spent between 1 hour and 1 hour 59 minutes preparing.	Student spent less than an hour preparing for project presentation.
Presentation - Length Due: scheduled date of presentation	Student's presentation is between 5-10 minutes.	Too long.	Too short.
Presentation - Quality Due: scheduled date of presentation	Presentation is both informative and interesting.	Presentation is either informative or interesting.	Presentation is neither informative nor interesting.

Dates for presentations: _____

Possible topics: report on a famous mathematician, prime numbers and the life cycle of cicadas, sound waves, music, pi, phi or the golden ratio, Fibonacci numbers, negative numbers, imaginary numbers, gravity, hexagons or other polygons, symmetry, classic architecture, modern architecture, platonic solids, atomic structure, microbiology, Jackson Pollock art, fractals in nature, Loren Carpenter history, Pixar, computer graphics, 3D printers, how video games use math, predictions, gambling, chaos theory, migrating patterns, behavioral patterns, "wisdom of the crowd", Google search, M.C. Escher art, mobius strip, Penrose triangle, ratios and proportions, chemistry, physics, earth science, planetary science, rates, finances, graphing, or ... choose your own.