

E=MC² (Enrichment = Math Confidence²)

Students eagerly and willingly arrived at school at 7:30 a.m. or on Saturday to work math problems. Students won numerous awards for their top scores in contests. The students' increased interest in math was much greater than I had imagined. The project will remain with the students throughout their high school and college years because of their increased confidence in mathematical problem solving and the recognition they received for succeeding in math.

Curriculum/State Standard

Depending on the individual student's grade level, this project fulfills one or more of all standards for Algebra I and II, Geometry, and Pre-Calculus. For all students at all levels, the project especially fulfills the Mathematical Reasoning and Problem Solving Standard.

Overview

Students worked independently and collectively on practice sets of contest questions and competed in several math contests. Students participated in before-school activities to prepare for the contests and other math projects.

Objectives

- The student will be motivated to seek math knowledge as a self-learner.
- The student who is gifted will grow in confidence in solving challenging math problems.
- The student who easily completes daily assignments will be provided an opportunity for more challenging work.
- The student will be supported and rewarded for completing extra enriching and challenging work.
- The student will increase his/her problem solving skills.

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9-12

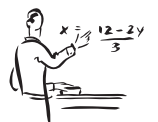
GRADE LEVEL



ARTS



LANGUAGE



MATH

Misc

MISCELLANEOUS



SCIENCE



HISTORY



SOCIAL STUDIES

9

MONTHS

\$1000

TOTAL BUDGET

“E=MC²” project continued...

Materials

Materials needed are copies of contest questions from previous years and calculators.

There are many good contests programs available. For this year, I selected the Catholic High School Contest by Mathfax, the American Mathematics Competition by the American Mathematical Association of America, and the Indiana Council of Teachers of Mathematics Contest. A contest was also held among the students themselves and trophies were awarded for the top three in each area.

Readiness Activity

Each student participated at the level of the course in which they were enrolled.

Strategies/Activities

Students worked on practice tests for their specific level from previous state and national math contests after completing homework in class, at home, and in groups before or after school. Practice sets were provided two to four weeks before each contest.

Students established guidelines for awarding E=MC² awards to successful problem solvers of their group.

Students met before school once a week to check solutions and share solution methods. Solutions were also available in the classroom for students to check after completing their classroom assignments.

Students received enrichment training in the use of graphing calculators and other technology to solve problems where applicable.

Students competed in current state and national math contests.

Students evaluated the year and celebrated with a banquet where the E=MC² awards were presented.

Culminating Activity

The year culminated with a banquet for students, parents and administrators and was greatly enjoyed by all. A college professor was invited as a guest speaker and awards, certificates of achievement, and trophies were presented.

Evaluation

Records were kept and tallied of each student's contest results. At the end of the year, students were asked to complete an evaluation questionnaire.