

**Helena Education Foundation
Great Ideas Grant Program
2008 – 2009 Application**

APPLICATION AND SUMMARY PAGE

Please complete responses to all questions.

The Power of Play
\$ 998.80

Project Title (This name will be used in publicity so be creative!) Funds Requested

Number of Students to be served: 700 Grade Level(s): 6-8

Number of Schools to be served: _____

Type Grant: Individual (funded up to \$1000)
 Group (funded up to \$3000)
(ALL applicants must sign signature page.)

Subject(s) impacted by this project:

Arts Math Science _____
Speech
 Foreign Language Social Studies Library
 PE/Health
 Special Education Business Reading/Language
Arts
 Career/Technical Counseling & Guidance
 Other: _____

Using ONLY the space below, please provide a summary of the program in 50 words or less. We will be using your summary for publicity about the grant recipients, so please try to explain the purpose, proposed impact and how our project meets our creativity and collaboration goals.

Students participate in math games using various manipulatives and games. Teachers implement new classroom techniques to enrich student learning and foster dynamic educational experiences. Math lessons are presented in hands-on lessons that allow for achievement of non-traditional learners. Traditional concepts are reviewed and reinforced using innovative and exciting activities.

The Power of Play

Justification

A. Project Need. This grant will target at-risk and underachieving students by incorporating math games into the traditional eighth-grade curriculum. At the eighth grade level, when so much of our thought shifts from concrete to abstract, alternate visual representations and hands-on activities play a key role in development.

B. Purpose of Project. The use of math games in the classroom will increase student engagement, accommodate multiple learning styles, and incorporate cooperative learning strategies. The increase in engaged time and the alternative visual representation will lessen the gap in proficiency seen between groups of different race, ethnicity, and gender. Students from underrepresented populations will increase their participation and success.

By accommodating multiple learning styles, student achievement will improve. This project meets the school's mission to "create a positive learning environment that allows students to succeed by giving them opportunities to be their best."

Relevance to Great Ideas Grants Program Goals

A. Creativity and innovation. In traditional math classrooms, teachers lecture and students use pencil and paper to practice mathematical concepts. Mastery is assessed through quizzes and tests. Review is usually in the form of a few extra problems tacked on to the end of a homework assignment or quiz. Using the manipulative and games purchased with this grant, I will incorporate hands-on teaching and review exercises into each math concept we cover in class.

B. Extension of student learning. This project extends student learning beyond the classroom by breaking the fear barrier that is responsible for low achievement in math at every grade level. I am promoting lifelong learning by exposing students to innovative instruction. I am extending learning into the home by getting students so excited about learning that they will go home and talk about what they learned with their family. Some of the games purchased can be reproduced for use in the home.

C. Collaboration. Six math and six science teachers will have access to the shared games, kits, and calculators for use in their classrooms. Materials will be stored in a mathematics lab area that is accessible to all teachers.

D. Availability of other funding. There is no other funding available for the purchase of these materials. My regular teacher budget is depleted after I have purchased basic office materials such as dry-erase markers, graph paper, staples, etc.

Project Description

A. Design. I will use the games and math kits on a weekly to monthly basis to present math lessons and review math concepts. The calculators purchased with this grant will be used by students on a daily basis. Although the eighth-grade school supplies list includes a scientific calculator, many students are unable to procure them, and they are indispensable to math learning.

The *Math Explorer* kit contains materials that can be used in more than half of the chapters we study at the eighth grade level. The materials that cannot be reused are easily replaced using my classroom budget.

The *Geometry Labs* kit is key to math instruction at the eighth grade level because the geometry concepts introduced and explored at the eighth grade level are too abstract

for many adolescent minds to master. The geometry kit presents abstract material in very hands-on activities.

The three games purchased with this grant each reinforce basic math concepts that are fundamental to success in high school and beyond. These basic math skills need to be constantly reinforced.

The games, kits, and calculators will be available for use in all of the science and math classrooms, with scheduling preference given to the eighth grade math.

B. Budget. See attached.

Evaluation, Dissemination and Future Plans

A. Evaluation. The success of this project will be measured in many ways. First, student performance as measured by classroom averages should increase due to an increase in review and reinforcement time. Student engagement and attitudes toward math will increase as measured with a student survey.

B. Dissemination. This project will be shared during weekly neighborhood meetings and monthly department meetings. Announcements pertaining to the classroom activities and curriculum made possible by these materials will be placed on my district web page. I will offer consultation and support to my colleagues in incorporating these materials into their classrooms.

C. Future Plans. This project will provide fundamental educational products that I will use in my classroom for as long as I teach in my current position. In the event that I change teaching assignments, these materials will be available through the math lab to colleague who demonstrates the desire to incorporate manipulatives and games into

his/her daily lessons. In the future, I would like to expand this project to include enough games that our school can host a family math night in which students eat dinner and learn to play a math game with their families.