

Technology and Math for Students and Staff

A Math Achievement To Realize Individual Excellence (MATRIX) grant has been approved and awarded to the Elizabeth School District by the New Jersey Department of Education (NJDOE). This grant aims to improve academic achievement, teacher effectiveness, and the integration of technology into the math curriculum and instruction. This is the first year of three for this grant, which creates a stimulating opportunity for the faculty members at Battin and McAuliffe middle schools who are hosting this project.

Through MATRIX, the faculty will be creating a project Web site displaying math curriculum, lesson plans, student achievement, and grant-related information. Stevens Institute of Technology's Center to Improve Engineering and Science Education (CIESE) will provide continuous professional development, including workshops and in-class support to implement technology in mathematics. After the first year of implementation, educators will continue their progress and projects through professional development training and mentoring experiences.

Ms. Mongioi's sixth-grade class at Battin Middle School is implementing this new program by introducing students to fractions using the "Number Town" video and participating in interactive activity. The students were each given a fraction, and walked around the room to find other members of that fraction family. This activity was then reinforced by the computer game "Number Town" located on the CIESE math Web site. This MATRIX based

lesson using technology and real-world applications of fractions was prepared using software, media, and manipulatives to increase the students' understanding.

McAuliffe Middle School students are applying this technology in Ms. Carson's class by using the CIESE Web site "Pizza Comparison Activity" to determine the area of a pizza along with best buy information. The class is also working on a pricing game in which students create their own store, stock it with merchandise, and solve pricing problems using the Geo-Sketchpad and the Shapemaker activities. These mathematical designs represent some introductory pieces of the Matrix project.

This program utilizes technology designs to educate both students and teachers on how to further their understanding of mathematical relationships. Providing our Elizabeth students with innovative tools to increase their 21st century math competency is a priority here in Elizabeth.



Ms. Mongioi's sixth-grade Battin Middle School students using the interactive Web site for their math lesson.



Carole Cascio,
Board Member

"Our district prides itself on the achievement of all our technology advances. I enjoy seeing our new preschool classrooms with state-of-the-art Smartboard capability and technology programs in place in all of our schools. It is important that students have these advances at their fingertips, and that teachers are effective and aware of the integration of technology and math as tools in the academic process."