**East Baton Rouge Parish MSP**

**PROJECT E-STEM (EXPLORING SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS) - ELEMENTARY PROJECT | 2011 - 2012**

---

**Project Details**

**Lead District:** East Baton Rouge Parish School System

**Partner District:** Zachary Community School District

**Higher Education Partner:** Louisiana State University (LSU)

**Federal Funds Received:** $370,000 (two years)

**Participating schools:**
- Belfair Montessori
- Broadmoor Elementary
- Capitol Elementary
- Delmont Elementary
- The Dufrocq School
- Glen Oaks Park Elementary
- Greenbrier Elementary
- Highland Elementary
- Jefferson Terrace Elementary
- LaBelle Aire Elementary
- Magnolia Woods Elementary
- Parkview Elementary
- Progress Elementary
- Scotlandville Elementary
- Villa Del Rey Elementary
- Westminster Elementary
- Winbourne Elementary

---

**Exploring and Integrating Mathematics and Science**

Have you ever wondered about the relative size of infinity or the importance of zero? What about the processes that affect the earth, weather and climate, rocks and the rock cycle? How DO we get that beautiful sand in some of our rivers? What causes changes in the weather and climate? How can our students in Louisiana see rocks brought back from the moon? These questions and more were explored by E-STEM participants through various engaging, hands-on activities that spark interest and provide the foundation for learning mathematics and science. As one E-STEM teacher wrote in her summer survey, “The hands-on activities in the MSP project were awesome!”

Number and Number Relations and Patterns, Relations, and Functions drove the mathematics and science content, along with Science as Inquiry and Earth and Space Science. Hands-on activities such as rock and mineral identification were used extensively to increase content knowledge and encourage participants to employ active learning with their students. The participants also received a rock and mineral specimen kit to help illustrate the properties of each type of material.
Learning in today’s world requires a level of sophistication that far exceeds that required in times past. Technological advancements and the sheer volume of information that we receive daily demand that educators provide experiences in keeping with the workforce needs of tomorrow. In response to this demand, E-STEM incorporates research-based strategies that not only capture the interest of the learner, which is the first level of learning, but that also demand the use of higher order thinking skills in problem-solving. For example, through a series of challenges E-STEM participants explored the concept and function of a number system, first by examining a simpler number system and then by comparing it to our own system. Through this process, the participants gained a better understanding of the fundamental nature of numbers and their properties. In addition, Paige Keely’s Formative Assessments and Curriculum Topic Study, William Brozo’s Literacy Strategies and Kagan’s Cooperative Learning Structures were three essential resources modeled and interwoven throughout the instruction.

As a result of the training they received from NASA Stennis Space Center representative Steve Culivan, E-STEM participants can now check out moon rocks! NASA has a wealth of information for teachers and students that Mr. Culivan shared with the participants using a similar MSP instruction model incorporating hands-on activities to uncover misconceptions and develop deep understanding of important science concepts. It was exciting to have NASA as a part of the total program!

Project Quotes

“Not only did we learn how to teach different areas of math and science, we were also given strategies to take back to our classrooms to use when implementing those areas, such as cooperative projects to do in the classroom with our students. I was given the opportunity to do hands-on activities with different manipulatives. I loved being able to explore things I will be doing with my students.”

“Every moment spent during the MSP project was a learning experience. In between lessons, we were still learning and being able to talk with other teachers was a huge success, as well.”

“This project presented information and strategies that are research-based. Instructors frequently referred to peer-reviewed literature, presentations, research, in order to supplement instruction.”

“We were taught ways to reach children that will give them a good understanding of math and science, as well as stretching our own brains with new information that was presented at the college level.”

“The information was very interesting and can assist me in my classroom by making me more aware of higher levels of math and science.”

“The instructors were always prepared and did a fantastic job of relating the material to real life situations.”

“Learning Logs and hands-on activities in a professional learning community represented high quality professional development.”

NASA Resources for Teachers and Students Welcomed by E-STEM

[CONTACT INFORMATION]

Project Director
Katie Blunschi
Assistant Superintendent for Instructional Services- Middle Schools (Area II)
1050 S. Foster Dr.
Baton Rouge, LA 70806
Email: kblunschi@ebrschools.org

Project Contact
Kerry Rogers

University Contacts
The Cain Center for STEM Literacy
Brenda Nixon
Nell McAnelly

University Science Instructor
Maud Walsh, Ph.D.

University Math Instructor
Catriona Anderson

MSP State Program Manager
Jean May-Brett
1201 N. Third Street | 4-259
Baton Rouge, LA 70802
Phone: 225.342.8993
Email: jeann.may-brett@la.gov

BESE Members
Ms. Penny Dastugue
President
Member-at-Large

Mr. Charles E. Roemer
Vice President
6th BESE District

Mr. James D. Garvey, Jr.
Secretary/Treasurer
1st BESE District

Ms. Kira Orange Jones
2nd BESE District

Ms. Lottie P. Beebe
3rd BESE District

Mr. Walter Lee
4th BESE District

Mr. Jay Guillot
5th BESE District

Ms. Holly Beffy
7th BESE District

Ms. Carolyn Hill
8th BESE District

Mr. John L. Bennett
Member-at-Large

Ms. Connie Bradford
Member-at-Large

Ms. Catherine Pozniak
Executive Director

Learning in today’s world requires a level of sophistication that far exceeds that required in times past. Technological advancements and the sheer volume of information that we receive daily demand that educators provide experiences in keeping with the workforce needs of tomorrow. In response to this demand, E-STEM incorporates research-based strategies that not only capture the interest of the learner, which is the first level of learning, but that also demand the use of higher order thinking skills in problem-solving. For example, through a series of challenges E-STEM participants explored the concept and function of a number system, first by examining a simpler number system and then by comparing it to our own system. Through this process, the participants gained a better understanding of the fundamental nature of numbers and their properties. In addition, Paige Keely’s Formative Assessments and Curriculum Topic Study, William Brozo’s Literacy Strategies and Kagan’s Cooperative Learning Structures were three essential resources modeled and interwoven throughout the instruction.

As a result of the training they received from NASA Stennis Space Center representative Steve Culivan, E-STEM participants can now check out moon rocks! NASA has a wealth of information for teachers and students that Mr. Culivan shared with the participants using a similar MSP instruction model incorporating hands-on activities to uncover misconceptions and develop deep understanding of important science concepts. It was exciting to have NASA as a part of the total program!

Project Quotes

“Not only did we learn how to teach different areas of math and science, we were also given strategies to take back to our classrooms to use when implementing those areas, such as cooperative projects to do in the classroom with our students. I was given the opportunity to do hands-on activities with different manipulatives. I loved being able to explore things I will be doing with my students.”

“Every moment spent during the MSP project was a learning experience. In between lessons, we were still learning and being able to talk with other teachers was a huge success, as well.”

“This project presented information and strategies that are research-based. Instructors frequently referred to peer-reviewed literature, presentations, research, in order to supplement instruction.”

“We were taught ways to reach children that will give them a good understanding of math and science, as well as stretching our own brains with new information that was presented at the college level.”

“The information was very interesting and can assist me in my classroom by making me more aware of higher levels of math and science.”

“The instructors were always prepared and did a fantastic job of relating the material to real life situations.”

“Learning Logs and hands-on activities in a professional learning community represented high quality professional development.”