

For a new generation of building blocks

Stem Matrix has been created to provide a hands-on, inquiry-based learning and teaching model for 4<sup>th</sup> and 5<sup>th</sup> grade STEM education.

## The Stem Matrix Model includes:

- A weekly hands-on proprietary STEM Curriculum and all weekly challenge supplies.
- Weekly classes for students during the school day in their school classrooms taught by our carefully selected Stem Mentor Team. Our Stem Mentors are exceptional local university students who bring science and a natural passion and ability to relate to young students; Most of our Stem Mentors are bilingual and have grown up in the very kind of community they are coming back to serve.
- A program currency called *Matrix Money* is awarded for program success and good citizenship and is then spent to buy very cool science toys during the big annual Stem Matrix interschool competition at the end of the school year.

## Some Additional Program Benefits

- Stem Matrix is a turnkey program requiring no school supplies and very little time from school personnel beyond setting aside an agreed upon hour each week for the program.
- All the STEM challenges have been designed to align with Next Generation Science Standards (NGSS), Common Core State Standards (CCSS), and the International Society for Technology in Education (ISTE) Standards.
- Challenges address science, technology, engineering, and math, as well as the arts and both literacy and math are essentially reinforced in each challenge.
- Stem Matrix stands strongly alone or can complement existing school STEM curriculum and programs.
- Stem Matrix essentially steps into the world of Gamification as students must successfully navigate in small team settings a number of academic and critical thinking hurdles in order to play and win in areas of learning that 5<sup>th</sup> graders find exciting and interesting. The concept of "interesting and exciting" is directly connected to the years of classroom experience the members of our creative team brought to Stem Matrix, and is essential to the buy-in that our student "Stemmers" experience.
- All challenges essentially address literacy and math while also identifying relevant real world issues that involve the day's challenges. Throughout the Stem Matrix experience students keep a journal in which they record notes and observations, and develop hypotheses. Stem Matrix Mentors have been trained to ask: "where would you find this issue in your daily life? How does this issue affect your family, community, and our world?
- Stem Matrix is also both a strong bridge for FAMILY INVOLVEMENT and a great training ground for PROFESSIONAL DEVELOPMENT. Students bring home their *One Pager Challenge Summary* to share with family as well as tips on how parents can become more meaningfully involved in their child's education. Classroom teachers and other school staff are essentially able to participate in classroom sessions where they see the benefits of incorporating many of our program components into their daily classes.