The Alhambra Elementary School District (AESD) is proud to have been one of the seven sites chosen to be a part of the Helios STEM School Pilot (HSSP). Just over three years ago when applying for the grant, we were already a few years into our own STEM initiative. AESD had chosen a science curriculum for grades K-8 and had dedicated personnel in place: district level science coaches, a Director of STEM, and those responsible for materials management. In addition, we had numerous and effective afterschool STEM clubs, including Engineering is Elementary, Design Squad, and MESA.

Still, when we looked at the STEM Immersion Guide, we knew there was room for growth. In order to move from the Exploratory stage to Introductory and eventually, Partial Immersion, we would need more of a focus on integrating STEM into our daily curriculum, and incorporating STEM concepts across as many content areas as possible. The HSSP grant gave us the resources (financial, intellectual, and technical) to do just that.

AESD’s grant was used primarily to build STEM engineering labs using Paxton Patterson Action Labs. These labs were aimed at helping our junior high students gain exposure to new and relevant content, such as Laser Technology, Alternative Energy, and Robotics. The labs also give students a chance to build connections to existing curriculum, and explore the idea of a career in the STEM fields.

As STEM education capacity was built in our teachers and administrators, we moved from the Exploratory model to Introductory. Along the way we started to find additional ways to incorporate STEM into our existing curriculum. AESD created engineering activities aimed at all grade levels, integrated science, technology, and ELA using the College and Career Readiness Standards to produce multiple Technology Enhanced Lessons for every grade level, and engineered multiple new STEM Clubs including Vex Robotics, LEGO League, and Coding.

The results have been staggering. Every year AESD has over 400 junior high students experience our STEM engineering labs, more than 700 students participate
in greater than 40 afterschool STEM Clubs, and every single one of our 13,458 students participate in engineering activities as part of their regular science curriculum. AESD has built strong relationships with business and community partners such as Intel, Vertech, Grand Canyon University (GCU), Arizona State University, University of Arizona, the Burton Barr Public Library, and Quantum Energy and Sustainable Solar Technology (QESST). In addition, AESD is proud to be the recipient of numerous STEM related grants from the Arizona Diamondbacks, Bosch, Century Link and AzTEA, DonorsChoose, and GCU.

Our students have earned awards through their participation in our MESA Clubs, including first place in the 2014 National Championship Award for Design Efficiency and three separate awards at the 2015 Nationals. The Connect 2 STEM Award recognized AESD’s commitment to STEM education and our partnership with Intel, and AESD is proud to say that our district supplies over 30% of the acceptance letters into Phoenix Union’s Bioscience High School.

AESD is grateful for the opportunity that Helios Education Foundation and the Science Foundation of Arizona have provided for our students. Through continued hard work, commitment of resources, and a vision for children’s future, AESD looks forward to sustaining our reputation as a leader in STEM education.