CEEMS Closing Day Showcase Facilitates Promising classroom Results

By: Desiré Bennett

Community members, educators and engineers gathered at the CEEMS Showcase August 2, 2013 to join teachers as they highlighted seven weeks of hard work through poster presentations.

With its second year of instruction underway, the CEEMS program is equipping area teachers with tools to impact STEM education in the Tri-State and beyond. The showcase on Aug. 2 marked the kickoff to an impactful year.

During the showcase teachers displayed a poster that summarized each of the three units created during the CEEMS Summer Institute.

Professor Anant Kukreti, principal investigator for CEEMS and director of management and design of the CEEMS effort says that these posters will not only benefit students but the teachers as well.

“During the summer training workshops the teachers were actually trained to make posters, so although they can use [the poster] in their class for the students so that the students will know what is ahead, this is the first time that the majority of the teachers have ever made a poster on any topic,” he said. “So this showcase is practice – practicing the skills of making and presenting a poster.”

First year teachers created three new units which they will further develop and implement during the school year. Teachers in their second year of the program also displayed three units, recreating one unit from the previous year. Throughout the school year teachers will give details of how each unit was implemented, providing assessment results concerning student learning, knowledge growth, personal reflections of what works, what does not work and/or what needs to be changed.

Hughes STEM High School STEM educator Brandon Williams is in his first year of the CEEMS program and is hopeful about the impact of bringing his units into the classroom. “I think it’s going to make the kids a lot more engaged in the learning of different projects and since we are a STEM school, my students will learn how
the different fields come together,” he said. “It’s also going to give them an opportunity to be more hands-on, so our kids aren’t just sitting at a desk and trying to memorize information – they’re actually becoming engaged and learning more about it.”

Goshen Middle School science teacher Samantha McConnaughey agrees. “The kids are going to get really excited about the units and how hands-on they are and the different experiments they get to do,” she said. “Plus it’s going to give the kids more hands-on experience and more real life experience and exposure to the different careers.”

McConnaughey believes these units could ultimately lead to not only more engineering degrees but also life-enhancing skills. “It brings to the kids the engineering design process that typically is not used in the classroom and that’s something that can be applied not only if you’re an engineer but in any career,” she said. “If students are able to solve problems and have that skillset that’s not unique just to engineering or science and math degrees in general, they can use those skills in college and they can use them in any degree that they go in.”

Norwood Middle School science teacher Caleb Barber, who has just completed his second year in the CEEMS program, says that he has seen changes in his classroom as a result of implementing units from the previous year. “Students are not pigeonholed to look for one answer. When I first started implementing the units last year, by the end of the year students were looking for more than one way to find an answer,” he said. “And that is something that they need to learn – it’s not always 2+2=4, you can get to four a whole lot of other ways.”

According to Barber, these units benefit students beyond the classroom. “Sometimes you have to go back to the drawing board and try again multiple times and that’s what these units are teaching our students,” he said. “The first time you try something it might not work, but why give up when you have a chance to go back and try again? These units are teaching our students to not only find the answer and not only to find it in different ways, but to look for it even when you don’t find it right off the bat.”

CEEMS is funded by the National Science Foundation, grant #1102990.