
National Blue Ribbon Schools Program

EXCELLENCE IN EDUCATION SINCE 1982

Mount Lebanon Elementary School
Pendleton, South Carolina
Anderson County School District 4

Transcript: Learning Through Real World Application

Elliott Southard, Principal at Mount Lebanon Elementary School:

My name is Elliott Southard, Principal at Mt. Lebanon Elementary. The overall instructional model and focus of our school is STEM-centered. We try to have a STEM focus in everything that we do. One of the main reasons or one of the main things that makes our STEM program successful and as a result our school successful – it's the people. When we started this process eight years ago, we had an empty classroom and we had a teacher who was excited about STEM. We didn't have any extra funding, we didn't have any extra materials, we didn't have supplies. I think in any organization if you don't have good people, you can't get good results.

Certainly, there is an expectation that all of our teachers, all classroom teachers, incorporate a certain level of STEM instruction within their classroom. But teachers are tasked with so much these days and so we knew if we wanted to do STEM well, we couldn't make it something that the classroom teachers were solely responsible for. And when the decision was made many years ago to have STEM as our "Signature Experience", one of the things that we decided was we needed a person who was the STEM champion of the school, the person who was the advocate for STEM, the expert on STEM, the one that could really promote it and facilitate it throughout the school. And so we decided that we needed to have a STEM teacher.

Our teachers had buy-in from the beginning with how the model would work because it did not take time away from their instruction in the classroom. We put that as part of our related arts rotation so every student in the school goes to the engineering lab for 50 minutes every week. The teacher in the lab works with all of the other grade level teachers to find out what they are teaching and when. And then from there, the engineering lab teacher develops activities, experiences, research projects for the students to apply what they're learning in the classroom to a real world setting within the engineering lab.

We teach state standards and we do a lot of that content knowledge and introducing the standards within the classroom, kindergarten through sixth grade. They're teaching the standards just as they normally would and there is a certain level of application of those standards within the classroom. But the true application happens weekly in the engineering lab where the teacher there creates real world activities, real world experiences for the students to apply that knowledge that they learned in the general classroom into the engineering lab.

We decided we needed common knowledge or common terminology that could be used across all grade levels that could be used in the general classroom as well as in the engineering lab. So we used the Engineering by Design process which has several different steps; setting goals, asking questions, imagining solutions, planning, creating, improving and then it repeats again. That is something that we have posted in all classrooms. That common terminology gave teachers another resource to use in their classroom for problem solving. But that is the process that we use for attacking all problems in the engineering lab so that the students from kindergarten on become familiar with that process and that's how they attack every problem, every project, every experience that they have. They understand that cyclical process and it helps them just look at things differently than a linear model would.