

In the summer of 2008, the Thermo Fisher Foundation for Science and Charlotte Mecklenburg Schools teamed up to create a prototype elementary science lab at Lebanon Road Elementary School. The focus of this partnership was to provide an exemplary case of how the right learning environment can produce a highly engaged classroom setting that can increase student performance and strengthen the bond between students and teachers.



Elementary Science Labs: A growing need in challenging times

So why create an elementary science lab?

In conjunction with the expectation to enhance elementary learning and instruction, state and federally supported testing has increased the level of accountability required by teachers and administrators to show measurable gains in student performance. The awareness of this need has led educators to create curriculums that take a more “hands-on” and inquiry-based approach. In order to support these curricula, both Fisher Science Education and Charlotte Mecklenburg Schools realized that they needed to create a lab that was designed for this type of learning.

Furthermore, most teachers in traditional elementary classrooms have not had the opportunity to see the impact of inquiry-based science lessons on their students. This happens all too often due to the complex and sometimes intimidating perception that science has in an elementary setting. Dr. Cindy Moss, Director of Science and Math for CMS, described this point and presented how an elementary science lab can offer a solution: [“Many elementary teachers are uncomfortable teaching science, and much as a lab coat makes them feel like a scientist, this lab room helps them understand that elementary students and teachers can really do science.”]

What type of lab are we talking about?

The elementary science lab at Lebanon Road Elementary School blends traditional classroom learning and inquiry-based instruction by having a separate area for lecture as well as a fully functional science lab. Within this setting, teachers can introduce concepts, engage with “hands-on” activities, and assess progress with immediate feedback and more control. This promotes problem-solving and communication that enhances the experience for both learner and instructor.

[“Students need to feel that they are really doing science, and with lab benches, sinks, access to the Internet and electricity, the students can do real science (Dr. Cindy Moss, CMS).”]

So what does the future hold for elementary science labs?

The emphasis on increasing our science proficiency at all levels of education has shown no signs of slowing in recent years. In considering this, it is quite easy to see the benefits that a “hands-on” approach to science can have in both the immediate and long-term future for education.

[“This lab has transformed the way science is taught and the way students feel about doing science in this elementary school (Dr. Cindy Moss CMS).”]

Today, Lebanon Road Elementary School demonstrates this concept by providing an example of how a properly designed lab and inquiry-based curriculum can enhance learning for both teachers and students alike.