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Career Exploration Technology Labs

The CCISD Career Exploration Technology Labs have curriculum infused with math, science, and technology, and includes hands-on activities. Future upgrades to the labs will include an emphasis toward engineering and science. Each lab has up to 12 work stations that can accommodate 2 to 3 students at one time. Students are "energized" by the depth of their experiences and praise the programs for giving



hands-on, up-front career experiences. The labs are made up of up to 12 to 15 educational modules. Each year, more than 900 students are served by these labs per campus. With 8 campuses utilizing the labs, 7,200 students are touched by these labs each year. The curriculum is interactive and uses multimedia which in today's technology driven world is essential for teaching today's students.

The Synergistic modules goal is to revolutionize the method by which students are taught. The approach is unique to middle-level education, utilizing the combination of curriculum, hands-on activities, teacher enablement, and a

learning environment that ensures successful teaching and learning. Every Module ensures that student learning remains positive and consistent in diverse school settings and is filled with the kinds of reading, writing, math, science, technology, and hands-on activities that make for a complete, educationally sound learning system and curriculum.

Each module is carefully analyzed and correlated to state and national

standards; this way a school can design a curriculum that is suited toward their own special needs. There are more than 90 module titles available and continuous improvements and software updates are being added. The curriculum is quality tested and aligns with state and national standards. The program provides



Career Lab Sponsorships

You can help sponsor a full lab or one of the modules within a lab. There will be three labs opening in the next three to four years and there is a need to replace outdated and irreparable modules at current labs. Modules correlate to a wide variety of industries and sponsorships for individual modules are \$2500. If you or your company is interested in a full lab or module sponsorship, please contact our office.

CCISD Teacher Testimonial

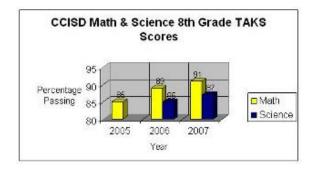
My name is Jennifer Chiles and I have been teaching in the Synergistic Lab for 6 years. I had previously taught science for many years and knew then that when the students were doing "hands on" activities they behaved differently. First they behaved, second they were excited about learning. I also knew it was expensive and very time consuming to come up with activities like that for every day. Then came the synergistic class. It was exactly what I had tried to do but couldn't on my own. I knew right away that this was an awesome opportunity for students to be able to take this class. From the first class, the students are amazed when they walk in to the class, and seeing all of the computers and equipment. Once I explain briefly what will happen at

Scholarships

consistent and easy-to-manage assessment and record keeping options.

STUDENT IMPACT:

The system is a proven success in thousands of schools across the country. Both anecdotal and scientific evidence shows student success in many measurable ways. Students achieve increased math and science scores, reduces reduced absenteeism, and gender equality and these are just a few of the powerful ways the labs can impact a school and its students. Synergistic Modules are student directed, which gives students control of their own learning experience. And because students work with a partner to complete each Module, the experiences they share in common promote positive communication, teamwork, inquiry, learning, and social skills. In Clear Creek ISD more than 900 students are served by these labs per campus. With 8 campuses utilizing the labs, 7,200 students are touched each year.



The labs offer many benefits, such as:

a unique learning experience through systematic methodology
a combination of standards-based multimedia curriculum that meets students of today technology-based learning needs
and hands-on activities, teacher training and a fun learning environment which offer students the opportunity to succeed in a classroom unlike any other.

TESTIMONIALS FROM OTHER SCHOOLS USING THESE LABS:

Synergistic Modules Take Test Scores Higher

Osawatomie middle school officials look to engage students in math and science

A seventh grader at Osawatomie (Kansas) Middle School takes her turn viewing a slide on the microscope at the Cell Structure Module.

It wasn't exactly love at first sight, but it had to be the next best thing. When Osawatomie (Kansas) Middle School officials visited the Synergistic Modules lab at Patton Junior High School in nearby Leavenworth, they were in search of a curricular solution that would fit into their plan for improving students' science test scores, which had dipped into the 40-percent range for proficiency and above.

Principal Dan Welch quickly knew their 1-1/2 hour drive was time well spent.

"We saw this science lab, and we just fell in love with it in the first 20 minutes," he said. "It just seemed the students enjoyed the class, and you could see why. We knew we had to do something to get the

each of the 15 Modules they can't wait to get started. Some of the most popular Modules include: Flight Technology, Animation, Plastics and Polymers, Alternative Energy, Robots, Engineering Bridges and Rockets. Students are learning about real world jobs and are they are being able to take this knowledge and use it as a guide for choosing a career path. After teaching this new style class for one semester I noticed that every type of student was learning. What amazed me the most was the students that have difficulty in other classes were experiencing success in this class. The class is designed so that students can move through the lessons at their own pace. If they don't understand they can "rewind" the lesson and hear it or see it again. They wear headphones and that helped helps those that could be easily distracted. The students are able to work alone or with just one partner. The system allows me to group students as needed for the best results. The students are challenged every day with complex Math math problems and research problems which many don't realize because of the way it is presented. Once they complete a Module they are excited to start a new one. They start asking what their new Module is before finishing the current one.

So many students are disappointed once they realize that the class is just one semester. Many want to stay so that they can do all of the Modules. In one semester they typically only get to do 10 out of the 15 Modules.

Strictly based on 8th graders response to this class, it has been an exciting addition to their 8th graders curriculum choices.



Jennifer Chiles shows off one of the modules at Victory Lakes Intermediate.

interest built back up in science."

Seventh-grade science teacher Melissa Maimer had reservations on the drive to Leavenworth, but any doubts were soon erased. "When I saw it, I was highly impressed with the time on task. Oh my gosh, those kids were engaged!" Maimer said. "Anybody who's engaged, even if they're pretending to be engaged, is learning something. Even though everybody had lots of equipment in their hands, it was very structured and organized."

A new approach

Maimer helped select the lab's 12 Modules that combined to address 87 percent of Kansas seventh-grade science standards. Some of the topics were new to the veteran teacher, so she was a bit overwhelmed at first, having to learn a new system for teaching core science.

She spent a good portion of the first year learning the content of every Module and figuring out where she needed to supplement the curriculum to hit the 13 percent of state standards not covered by the lab. An emphasis on vocabulary and special activities (see related article) helped fill that void.

Gradually, Maimer has come to embrace the Module system of learning. Now in her fourth year, she wouldn't want to change a thing.

"Here, the students get hands-on every day," she said. "I'd hate to go back to a traditional lab."

Improved test scores

Welch and other district officials had a clear goal in mind when implementing the Module science lab and upgrading an eight-year-old life skills and technology Modules lab at the school. They wanted to boost students' scores on standardized state tests.

"We liked that we could link up math and science standards with the Modules," Welch said. "The Modules we wanted were the ones that hit math and science. We wanted to hit two at one time."

Science test scores went up almost immediately. "We went from 40 percent to 71 percent in that first year, so we were real pleased," said Welch, who is expecting further improvement when science testing is conducted again later this school year.

Between the science lab and the updated life skills/technology lab, about 75 percent of seventh-grade state math standards were addressed.

"That's the glory story, you might want to call it," Welch said of math improvements. "We went from 33 percent to, this year, building-wide standard of excellence with 91 percent of our students proficient or above."

Maimer and the other Modules facilitator, Connie Davis, like how math is woven into every Module.

"The most awesome thing to me is the RCA questions," Maimer said. "They are interpretive of charts, tables, and graphs. They are multistack or equation centered, such as how to figure Kelvin (temperature). At first kids are thrown on that, but the math teacher is working on it as well. This reinforcement can only help students. Math and science are very interrelated." Welch is quick to note that only through a concerted effort of Page 3 of 4

curriculum improvement in all core math classes was such a dramatic improvement possible, but he's convinced the engaging Modules have played a key role in reengaging students and bringing science and math to life with real-world, hands-on activities.

"I think good teachers is where we start. Our whole staff deserves credit," Welch said. "But there's no question in my mind technology has played a large part in our success."

Taking NCLB to heart

Many educators view the No Child Left Behind Act with a wary eye, but Welch believes the at-risk population of OMS – 50 percent of all students – has benefited from NCLB.

"I'm one of the few, but I'm a big proponent of No Child Left Behind," he said. "I've seen what it's done for our building here. It's made every student accountable again, and it's made teachers accountable."

Improved test scores have been particularly impressive for the at-risk population. While science scores for all seventh-grade students at proficient and above improved 15 percent from 2001 to 2005, the gains for at-risk students were 25 percent, nearly eliminating the performance gap between the two groups.

"We thought if we were going to make Osawatomie a better place, these are the people we need to target, right there, the bottom 50 percent," Welch said.

A former science teacher who assisted Maimer in the science Modules lab during its first year was amazed that two of her former students who regularly had discipline problems were fully engrossed in their work.

"She couldn't believe how focused they were when they had stuff in their hands," Maimer said. "They were learning. They had Bs in my class, but they had Ds in her class. The lab is great for a child that needs something extra. The kids that can learn all different ways – learning comes natural to them – they also benefit because they can get even more."

Role reversal

With test scores at an all-time high, Osawatomie officials aren't hopping into school vehicles for long trips to learn about other programs and teaching methods. Instead, educators from neighboring districts are beating a path to their tiny town to learn the secrets to their newfound success.

"Others want to see what's happening at Osawatomie," Welch said. "I'm not going to argue with improved test scores, morale, and discipline."

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