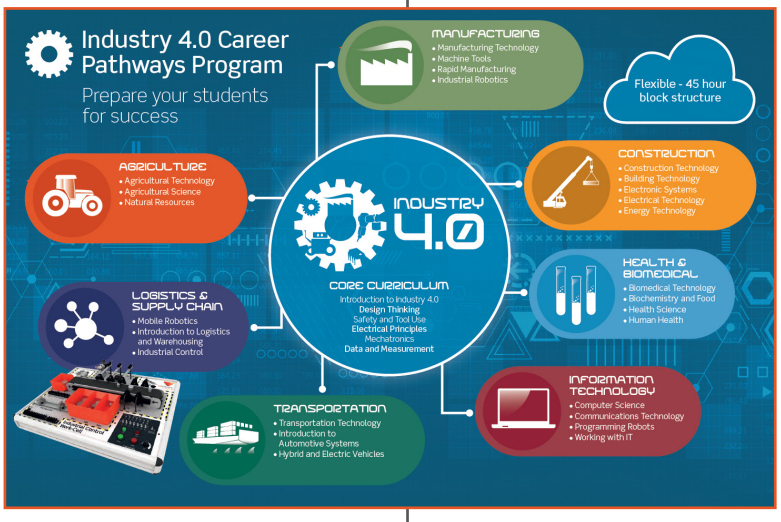
Ontario School District (Ontario, Ohio) Teams Up with LJ Create and Buckeye Educational Systems to Create and Implement a New State-of-the-Art Middle School STEM Career Pathways Program

LJ CREATE™
Learning for life

Welcome to Ontario's new lab utilizing LJ Create's "Industry 4.0 Careers Pathways" program! Designed to provide students with an introduction to Industry 4.0 concepts and applications across multiple industry sectors, students explore concepts such as sensors and control, data analytics, and the efficient utilization of resources. The Industry 4.0 Career Pathways program is designed to provide students with the skills and expertise they need to succeed in high school, college, industrial skills programs, and industry certification courses.

Everyone in the Ontario School District is extremely excited about the lab because they took an existing STEM/computer lab and completely renovated it from floor to ceiling. New movable workstations were brought in, and new storage spaces were added to create an engaging environment that excites their students.

Every edge of the middle school lab has something different, and Superintendent Keith Strickler, a former middle school STEM teacher, says that is by design. The goal is to expose students to a broad range of career paths in the world of STEM. "It's all about grabbing their attention and making things fun and interesting and introducing them to careers and opportunities that otherwise they would never know about, then providing a pathway as part of the big picture," Strickler said.[1]



A graphic on the lab wall highlights his point, as it outlines seven STEM career clusters: manufacturing, construction, health and biomedical, information technology, transportation, logistics and supply chain, and agriculture.

"This is the lab that I've always wanted to have," says Supt. Strickler. "If I could design my own lab on what I feel what a middle school STEM lab should be — this is it right here." Just take a look around!

1 Serrao, Katie Ellington. "Ontario's upgraded STEM Labs gain national attention." Richland Source. Nov. 20, 2024. https://www.richlandsource.com/2024/11/20/ontario-stem-lab/

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Photo Credit: Moylet, Jason J. Mansfield News Journal. July 16, 2021. https://www.mansfield-newsjournal.com/story/news/2021/07/16/keith-strickler-become-superintendent-ontario-local-schools/7954208002/

In one class, students use electrical circuit trainers to test electrical currents, voltages, and resistance. With another trainer, they simulate electronic communication. Using microwave transmitters, students bounce waves off tiny satellites and take readings to calculate signal loss.

In another corner of the room, there is a structure the size of a large dollhouse. But instead of furniture and dolls, the scaled-down house has tiny solar panels, a mini solar hot water heating system, slots to insert different types of insulation, and an overhead lamp to simulate the sun, allowing students to investigate green energy technologies.

Continuing around the lab, students are working on an auto circuitry training board – in which faults can be inserted into a model vehicle's electrical system – to practice diagnosing electrical problems using a multimeter.

Photo: Serrao, Katie Ellington. "Ontario's upgraded STEM Labs gain national attention." Richland Source. Nov. 20, 2024. https://www.richlandsource.com/2024/11/20/ontario-stem-lab/

Ontario STEM Instructor Doug Basham points out that creating excitement around the learning process helps to move the students forward. "In my opinion," Mr. Basham says, "one of the biggest things we struggle with – just in school in general – is kids don't want to make mistakes. And in my opinion, I need them to make mistakes! When they make mistakes, ... now we can go through the learning process. ... What did we do wrong? What do we do differently?"[2] Doug identifies that while giving students tasks at which they can always be successful is great for morale, real learning happens when they go through the learning process encouraged by the LJ Create Career Pathways program.

There is a lot of agriculture and manufacturing in their district, Supt. Strickler points out, so they're trying to introduce their students to these industries and the associated technologies, and give them the skills that their workforce needs. Their hope is that this investment will inspire the students to stay in Ontario after graduation and enable them to find good-paying jobs.

Mr. Basham is excited that, as the students get involved in the learning process, and have the chance to work with top-of-the-line technology that challenges them, they'll be better prepared to take on the future. He sees the impact on his students when learning is fun, and they want to be in the class and are curious to see what's going on.

2 Ontario School District @ontarioschools Nov. 15, 2024. https://www.instagram.com/ontarioschools/reel/DCaDzkTiCK6/