44 Schools **+** **More than** **18,000** Students **=** **One Powerful New Approach**

The Ohio STEM Learning Network Difference

Ohio STEM Learning Network

BATTELLE

For the Ohio STEM Learning Network, STEM is more than Science, Technology, Engineering, and Math. In the schools we represent, Ohio students are inspired to collaborate across disciplines to successfully solve real-world problems. That is the essence of STEM—students demonstrating knowledge by applying it to real-world situations.

Our schools are re-framing traditional career technical education (CTE) pathways to advance local economies, and their students' futures, into the new millennium.

Battelle was a founding partner in Ohio's first STEM school and drove creation of the network. Nearly a decade later, our company still proudly supports these schools for one reason: **The STEM school model pairs career preparation with innovative teaching, college credits, credentials, and local business needs.**

STEM schools must:

1) Enroll students under an open admissions policy (with no minimum test scores) and match the local community.
2) Create meaningful local partnerships with businesses, colleges, and the school district.
3) Use teaching methods based on real-world problems (including problem-based learning and design challenges).
4) Coordinate with the Ohio STEM Learning Network to facilitate the spread of innovation.

Leveraging state and federal CTE funding could bring this model to every state.

● STEM Schools
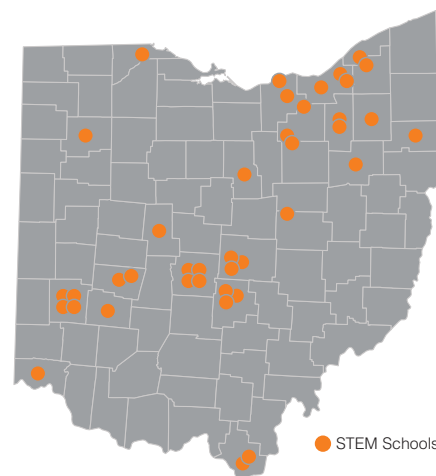
STEM Means Integrating College and Career
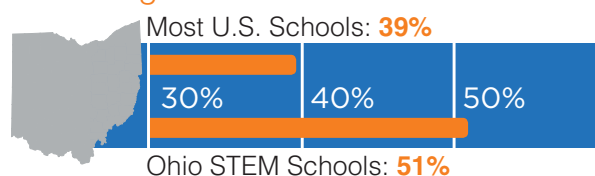
Students earn college credits in high school

12,000+
College Credits

Saving students more than **$7 million** in estimated tuition costs

Students enrolled in college after graduation

Most Ohio Schools: **70%**

| 60% | 70% | 80% |

Ohio STEM Schools: **81%**
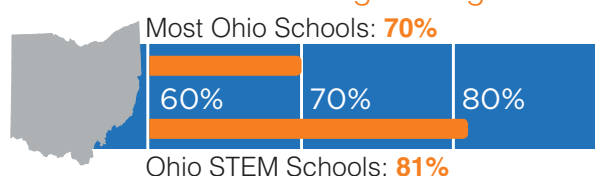
Students majoring in college STEM degrees

Most U.S. Schools: **39%**

| 30% | 40% | 50% |

Ohio STEM Schools: **51%**

STEM students make connection with businesses

81,000+
Internship Hours

STEM Means Opportunity For All

Ethnically diverse students

Most Ohio Schools: **29%**

20% | 30% | 40%

Ohio STEM Schools: **39%**

Economically disadvantaged students

Most Ohio Schools: **50%**

40% | 50% | 60%

Ohio STEM Schools: **56%**

Graduation Rate

Most Ohio Schools: **82%**

70% | 80% | 90%

Ohio STEM Schools: **89%**

ACT Score

Most Ohio Schools: **22**

15 | 20 | 30+

Ohio STEM Schools: **21**
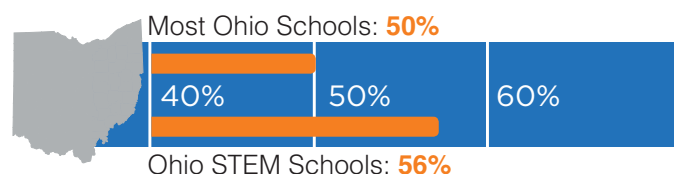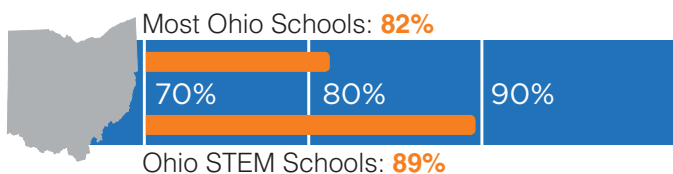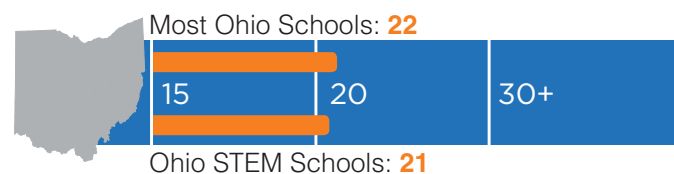
90% to 95% Graduation Rate:
Dayton Early College Academy
Dayton Regional STEM School
MC² STEM High School
Nothwestern Local High School
Reynoldsburg (HS)² Academy

100% Graduation Rate:
Bio-Med Science Academy
Global Impact STEM Academy
Reynoldsburg eSTEM Academy
Metro Early College High School

24+ ACT Scores:
Metro Early College High School
Reynoldsburg eSTEM Academy

25+ ACT Scores:
Bio-Med Science Academy
Dayton Regional STEM School
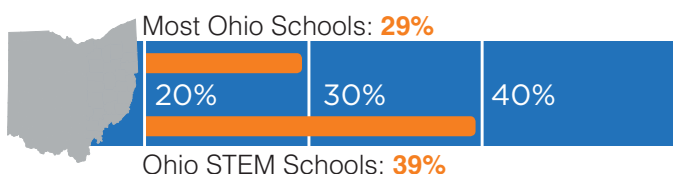
Sources: Ohio Department of Education Report Card (September 2016) and survey of Ohio STEM Learning Network schools by Battelle (June 2017)

STEM Schools Serve All Types of Students and Provide More

Unlike some school models, Ohio's STEM schools do not screen out students with academic gaps or serve a small slice of the community. Students graduate from STEM schools at higher rates (89% vs Ohio's average of 82%). STEM schools serve more **economically disadvantaged** and **minority students**, yet still post similar ACT scores.

The STEM School Experience Means Making Connections for Your Future

125,000+
Service Hours
STEM school students logged serving their communities

Through service learning, students build connection to their community and improve their resumes.

58%
of STEM Schools
joined #hourofcode to build computer science skills

Hour of Code is an annual campaign to recruit more schools to teach computer science created by Code.org.

100%
of STEM Schools
use inter-disciplinary design challenges with hands-on learning

Battelle recently hosted 106 students from Ohio STEM Learning to present solutions to the state's opioid crisis.

Source: Survey of Ohio STEM Learning Network schools by Battelle (June 2017)
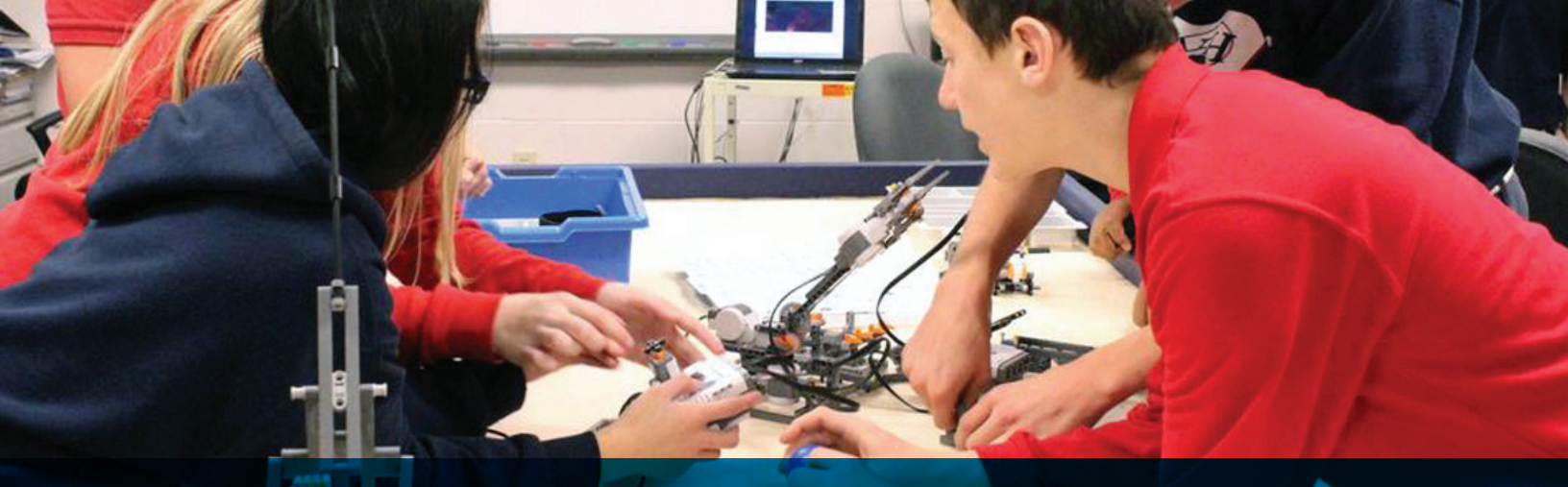
STEM means seeking partnerships with local businesses, colleges, and community groups.

To earn membership in the Ohio STEM Learning Network, schools must build partnerships with local leaders.
We recently surveyed our schools and regional hub coordinators, to ask about their partners.

They responded with more than 300 names, including these large organizations:

Akron Children's Hospital	Grainger Industrial Supply	Society of Hispanic Professional Engineers
Akron Children's Museum	Great Lakes Science Center	Spectrum (Time Warner Cable)
Akron Zoo	Greater Cincinnati Foundation	Speedway
Battelle	Greater Cincinnati STEM Collaborative	Texas Instruments
Best Buy	Greater Cleveland Aquarium	The Andersons
Boys & Girls Club	Honda of America	The Chamber of Greater Springfield, Ohio
BP	IBM	The FFA Organization
Cincinnati City Hall	Lubrizol	The Greater Akron Chamber
Cincinnati Observatory Centre	Mercy Health Systems	The Ohio Corn and Wheat Growers Association
Cincinnati Youth Collaborative	National Science Foundation	The Ohio Soybean Council
Cincinnati Zoo & Botanical Garden	National Society of Black Engineers	Toledo Botanical Garden
Clark County 4-H Extension	Northrop Grumman	Toledo MetroParks
Clark Planetarium	Ohio Dean's Compact	Toledo Zoo
Dayton Development Coalition	Ohio Department of Transportation	Union County Chamber of Commerce
Downtown Akron Partnership	Ohio Farm Bureau Federation	Upward Bound
Duke Energy	Ohio Sea Grant Stone Laboratory	Urban League of Greater Southwestern Ohio
Farm Credit Services of Mid America	PAST Foundation	Verizon Foundation
Fidelity Investments	Perrysburg Rotary Foundation	Vern Riffe Center for the Arts
First Solar	Procter & Gamble	Walmart Supercenter
GE Aviation	Rumpke	Whirlpool
GE Global Operations Center	Scioto County Head Start	Wright Patterson Air Force Base Research Laboratory
GOJO	Scotts Miracle Grow	Young's Jersey Dairy
Goodyear Tire and Rubber Company	Siemens	YWCA

More than 100 colleges, universities, and K-12 schools including:

Bowling Green State University	Northeast Ohio Medical University	University of Akron
Clark State Community College	Ohio State University	University of Cincinnati
Cleveland State University	Sinclair Community College	Wright State University
Columbus State Community College		

BATTELLE

It can be done