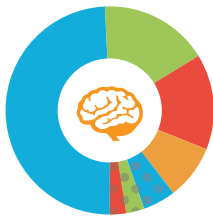


Unleashing Curiosity

424,678+
Student Experiences



- Math Personalized Learning
- Organization Grants
- Computing Partnerships
- Magic Show
- Innovation Incubators
- STEM Fest
- STEM Bus Program

Connecting Community

85+
Districts & Charters

250+
Community Partners

10+
Government Agencies

9+
Higher Education Partners

Building Capacity

8,537+
STEM Professional Learning Opportunities

For teachers, facilitators, and administrators statewide

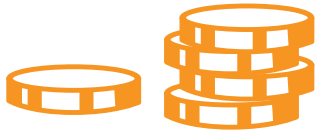


Evaluating Innovation

210+
New Ideas Put into Action
Including a STEM Landscape Analysis



Small dollar amounts



given directly
to people with
great ideas

can have huge impacts



Utah students won an
international science
competition at the world level



High school students learned about
half life and the perils of hanging
out in abandoned
uranium mines



12-14 year old girls from rural Utah
got to pilot real airplanes around
Cache Valley

Quick Facts

283 Ideas
Funded



93,502+ Students



283
Schools Impacted



63
Organizations
Supported



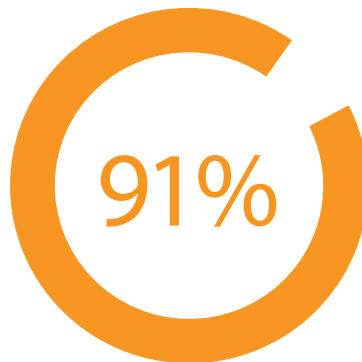
Participating in
two STEM competitions made students
three times more likely to want a STEM job*

*International Journal of Science Education

Percentage of teachers who reported positive impacts:



↑ ability to target instruction using data



↑ ability to engage equitably with students




↑ STEM content knowledge

STUDENT OUTCOMES


Teachers reported increases in students' ability to:



communicate
collaborate
think critically
think creatively



be self directed learners



solve real world problems

QUICK FACTS


5,732 teacher and administrator participants



76 locally designed STEM professional learning plans



58 multi-year projects, showing long term commitment and teacher buy-in



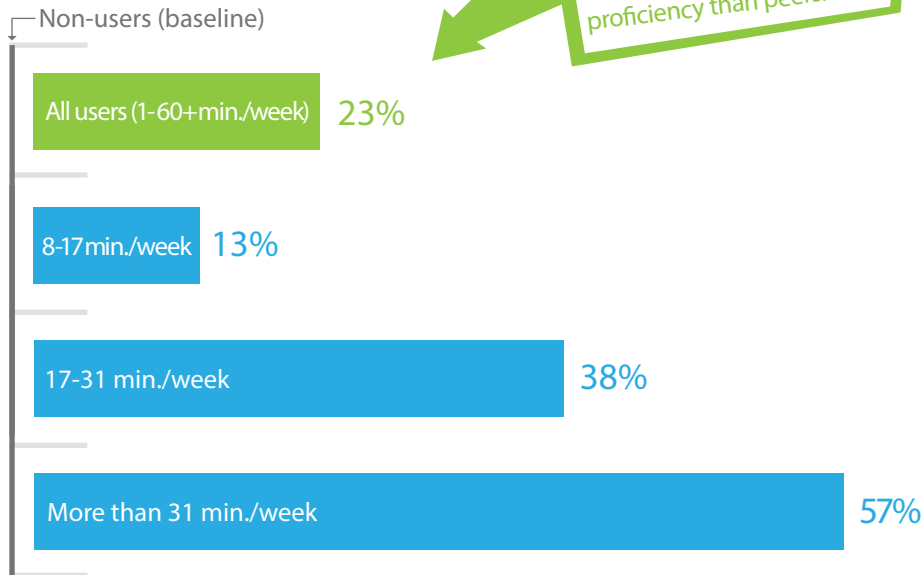


Math Personalized Learning Grants FY19 Report

For more information contact:
Clarence Ames | cames@utah.gov | 801-538-8617



Overall, students who used the software were **23% more likely to be proficient in math** in SY18-19 than similar non-users.*



Programs assess students' understanding of math and provide personalized content, adaptively targeting knowledge gaps and providing immediate feedback.

Teacher and Administrator Commitment and Support

- **81%** of teachers agreed the software **increased their instructional effectiveness.**
- **96%** of teachers agreed the software **helped students strengthen important skills.**
- **95%** of administrators agreed the software **had a positive impact on students' math performance.**
- **71%** of teachers agreed the math software **increased their satisfaction with their job.**

"This is the best program I have seen for teaching students to keep trying things and not give up when it is hard. I have seen an increase in their critical thinking skills"

The K-12 Mathematics Personalized Learning Software Grant provides funds to LEAs and schools through a competitive grant process to support the use of mathematics software that is individualized, self-adapting, engaging, and provides frequent feedback while addressing core standards in math. The Utah Education Policy Center at the University of Utah, in partnership with Utah Valley University School of Education, are serving as the external evaluators for the grant program.

Quick Facts



586 schools from
33 districts &
39 charters

134,807  Students



For
\$19/year

per student math scores improved & teachers reported increased job satisfaction

21%

of Utah Students
have access
to software

100%
of purchased
licenses were used



Math Personalized Learning Software Facilitates Innovation

HOW?

Innovation from the Software

The software provided **new ways** to solve math problems.



92% of teachers agreed



75% of elementary students agreed



59% of secondary students agreed

The software **built student** confidence in math.

83% of teachers agreed



68% of elementary students agreed



52% of secondary students agreed



NEW WAYS TO SOLVE PROBLEMS



CONFIDENCE IN MATH



Over 90% of teachers and administrators were satisfied with the software and would recommend the software to others.

What Teachers Say They Appreciate

- Software is adaptive to the students' levels.
- Students can work at their own pace and track their own progress.
- The software complements in-class teaching.
- Programs support the Utah Core Standards.
- The software is engaging.
- The software facilitates mathematical thinking and problem solving.
- Language learners and low-literacy students benefit from the visual components.
- Data reports increase instructional effectiveness.
- Regular use is associated with academic gains.



90%

of teachers felt the software was a good complement to classroom instruction



93%

of teachers felt the program was well aligned to Utah Core Standards

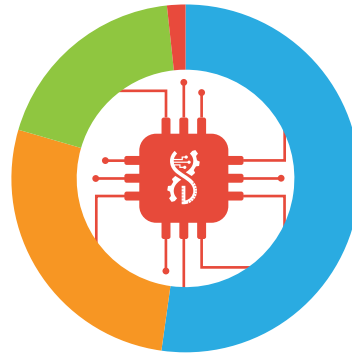
*Variables held constant in the models included 2015-16 SAGE math scores, low income, race/ethnicity, gender, grade level, and school Title I status.



30+

Innovative Ideas Funded

including 28 unique proposals from Utah teachers and administrators



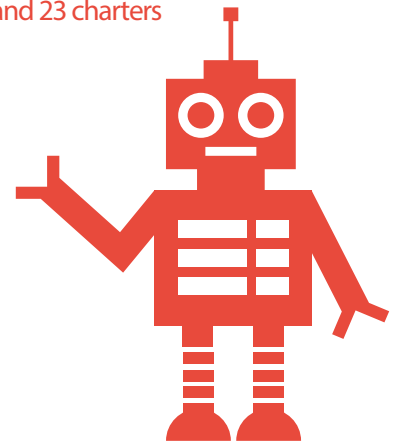
Number of students impacted:

- New Class Sections
- Outreach and Engagement
- Code.org
- Girls Who Code

63,000+

Students Impacted

From 410 schools in 34 districts and 23 charters



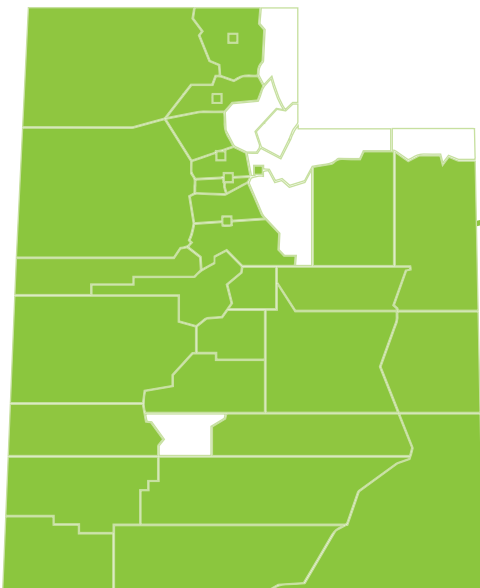
340+

New Opportunities for Students

including more than 250 new class sections



Impacted Districts



47%
off the
Wasatch Front



2530
Teachers &
Facilitators



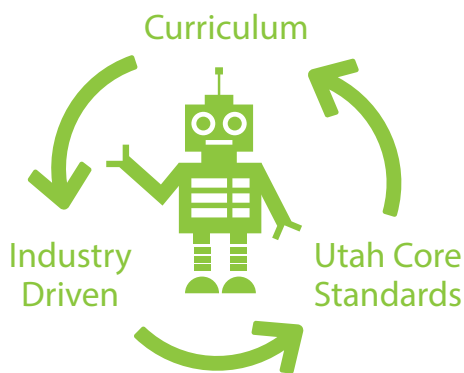
This has been a great way for us to evaluate computing curriculum using the out-of-school program. It is helping us to decide activities that should be included in our 6th grade course -- and those that are best as enrichment for the after school program."

- JoAnn Tuttle, Nebo School District

About STEM in Motion

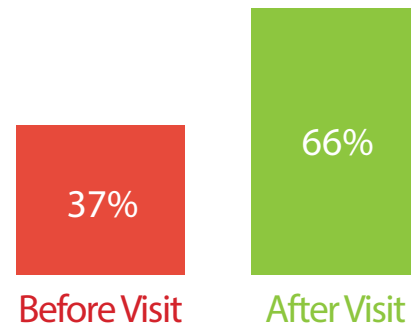
STEM in Motion is a traveling education program that visits schools and communities across Utah to provide hands-on learning and inspire the next generation of STEM leaders.

Curriculum



Student Impact

Percentage of students who reported liking STEM a great deal.



Quick Facts

10,780 students impacted

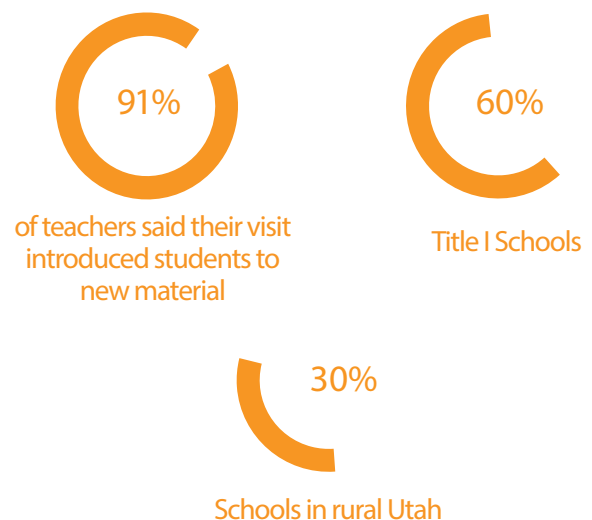
64 schools visited

20 school districts

449 programs taught

44,165 participants in public events

Equity & Access



Supporting STEM in Utah

Since its inception in 2016, the Utah STEM Foundation has worked produce a STEM-competitive workforce by collaborating with community partners to create engagement and industry alignment and deliberately allocating valuable funds.

100%

of funding recieved by the foundation is invested back into the community to support STEM in the state of Utah.

The Utah STEM Foundation Funding Priorities:



Workforce

Students will thrive in STEM and contribute to Utah's workforce



Innovation

We will use creativity and innovation to solve challenging problems



Girls

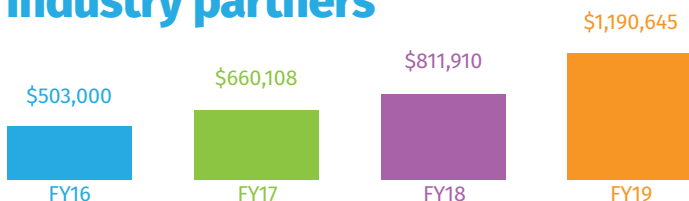
We will work to close the gender gap in STEM fields



Equity & Access

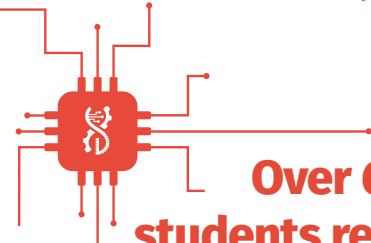
The Utah STEM Foundation by the Numbers

\$1.2 million donated by 40+ industry partners



Each year our relationships and donations increase. We appreciate all of our STEM champions!

Industry contributions helped students become prepared to enter the STEM workforce and contribute to Utah's economic prosperity.



Over 67,000 students reached