

STEM Action Center FY21 At-A-Glance

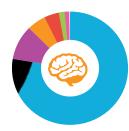
For more information contact: Tami Goetz | tgoetz@utah.gov | 801-674-2405

Unleashing Curiosity

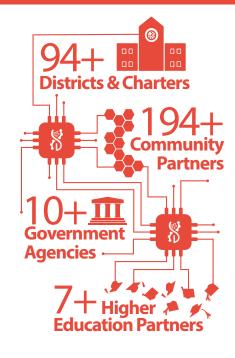


Connecting Community

211,823+
Student Experiences



- Math Personalized Learning
- Innovation Incubator Grants
- Computing Partnerships
- Sponsorships
- STEM Fest
- STEM in Motion Kits



Adapting & Innovating



Strategic Plan

450 Early Math "To Learn" kits distributed

11+ STEM outreach classroom kits

Community
"Innovation Hub"
now open

More early STEM learning opportunities, with a focus on math





Greater focus on inclusion and access to underserved populations, including rural

Greater collaboration with post-secondary partners









Innovation Incubators FY21 Report

For more information contact: Sue Redington | sredington@utah.gov | 801-535-3972

Small dollar amounts

given directly to people with great ideas

can have huge impacts







Quick Facts

58 Ideas Funded



10,790 +**** Students



Organizations Supported



In FY21, 38% of classroom grants were awarded to educators that identified their students as rural.

Educators reported that in spite of global challenges, students were able to master content that could translate directly into STEM careers, such as design, programming, and debugging.

"Many of the students that participated in the Science Fair are underserved in some way and for them to work through a project and for some of them to place in the state science fair was a pretty big deal."

- Heather Lambert





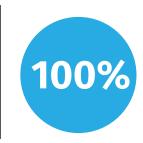


Utah STEM Foundation FY21 Report

For more information contact: Allison Spencer | aspencer@utah.gov | 801-520-5235

Supporting STEM in Utah

The Utah STEM Foundation works to support a STEM-competitive workforce through collaborations with industry and community partners to increase engagement and industry alignment for STEM education.



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

Foundation Funding Priorities:



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



We will work to close the gender gap in STEM fields



We will use creativity and innovation to solve challenging problems



We will provide Utah communities with equitable access to STEM opportunities

STEM Foundation Highlights

The Utahraptor Megablock Fossil project highlights the study and excavation of dinosaurs native to Utah. The Megablock contains several well-preserved Utahraptor skeletons and it will be extracted to prepare bones and other fossils. The Utah STEM Foundation is assisting the Utah Geological Society in accepting donations to further the project and has seen \$67,000 donated in FY21!



Donor Highlight: Boeing

Boeing donated \$75,000 in FY21 to support "To Learn" early math kits.

Donor Highlight: Northrop Grumman

Northrup Grumman provided \$10,000 to start our STEM Spots initative to bring STEM books to underserved areas in Utah.







For more information contact: Becca Robison | beccarobinson@utah.gov | 801-535-5872



HUB TOOLS

1 Tormach CNC Mill 1 Epilog Fusion Edge Laser Cutter

1 Glowforge Pro

1 Ender 3 Pro

1 Ender 5 Plus

1 Cricut Explore 2

1 Cricut Maker

1 Heat Press

1 Screen Printing Machine

Arduinos

Raspberry Pi

20 Laptops

1 Miter Saw

An Abundance of Hand tools

3 Drills

1 Impact Driver

2 Bernina Sewing Machines

1 Bernina Serger





STEM FACTS:

15 of the 20 fastest-growing jobs require STEM skills



STEM jobs earn almost \$20 more an hour on average in the U.S.



People working in STEM fields are less likely to lose their jobs





STEM in Motion Kits FY21 Report

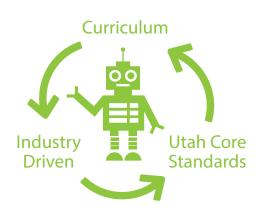


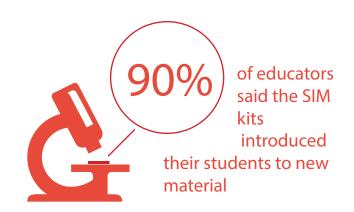
For more information contact: Colleen Fisher | colleenfisher@utah.gov | 801-535-3979

STEM in Motion (SIM) is an education program that works with schools and communities across Utah to provide STEM in Motion Cirriculum Kit rentals to inspire the next generation of STEM leaders.

Curriculum

Student Impact





Quick Facts

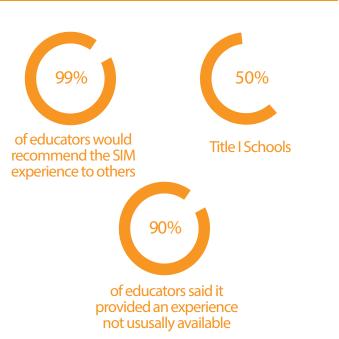
Equity & Access

8,000 students impacted

70 schools participated

26 school districts

1 1 STEM kits and lesson plans









Professional Learning Grants FY21 Report

For more information contact: Kellie Yates | kellieyates@utah.gov | 801-535-3976



Percentage of teachers who reported positive impacts:













STUDENT OUTCOMES



QUICK FACTS

Students report:

89% see themselves as a STEM person

90% find STEM class materials facinating

81% think about STEM uses in everyday life



teacher and administrator participants

46

locally designed STEM professional learning plans



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









Computing Partnerships FY21 Report

For more information contact: Lynn Purdin | Ipurdin@utah.gov | 801-535-3977



The Computing Partnerships program helps identify gaps in, and provide solutions for, computing opportunities for students and educators in Utah.

EDUCATOR OUTCOMES

Educators reported increases in



students impacted

QUICK FACTS





their:

Confidence with computing instruction



educator participants



Positive attitude toward teaching



new class sections





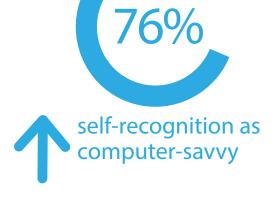


Value of integrating computing and technology into instruction

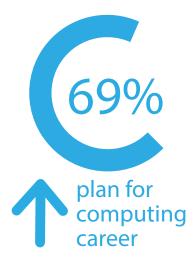


59% of projects in rural Utah

Percentage of educators reporting positive student impacts:











ACTION CENTER U · T · A · H

AmeriCorps Math Mentoring Program

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

High Quality Software

Students using software from the STEM AC Approved vendor list are more likely to be proficient in math than similar non-users.

Non-users (baseline)

All users

23%

More than 31 min./week

57%

High Quality Mentoring

Across multiple meta-analyses examining the impact of assorted math interventions average effects sizes for Small Group Tutoring were 0.30, while combined effects sizes across all other types of intervention averaged 0.16.

One to Small Group Tutoring E.S. 0.30

Other Math Interventions E.S. 0.16

Quick Facts



11 schools from 2 districts in year one

1,500







mentors recruited from local Utah communities to serve

Targeted students are at least two grade levels behind



AmeriCorps Math Mentor Program



AmeriCorps Members provide in-school mentoring to students in grades 4-8 to build important skills for academic and career success and improve their math performance. This program helps local communities respond to gaps in education caused by the Covid-19 pandemic, while actively addressing and removing inequities, including those related to race, gender, educational outcomes, and digital inclusion. By providing human mentoring, structured around proven math personalized learning software that identifies gaps in students' understanding and delivers content to target those gaps and develop foundational skills, students will achieve grade-level proficiency and develop the skills and attitudes required to be successful in math as they move forward throughout their academic career.



