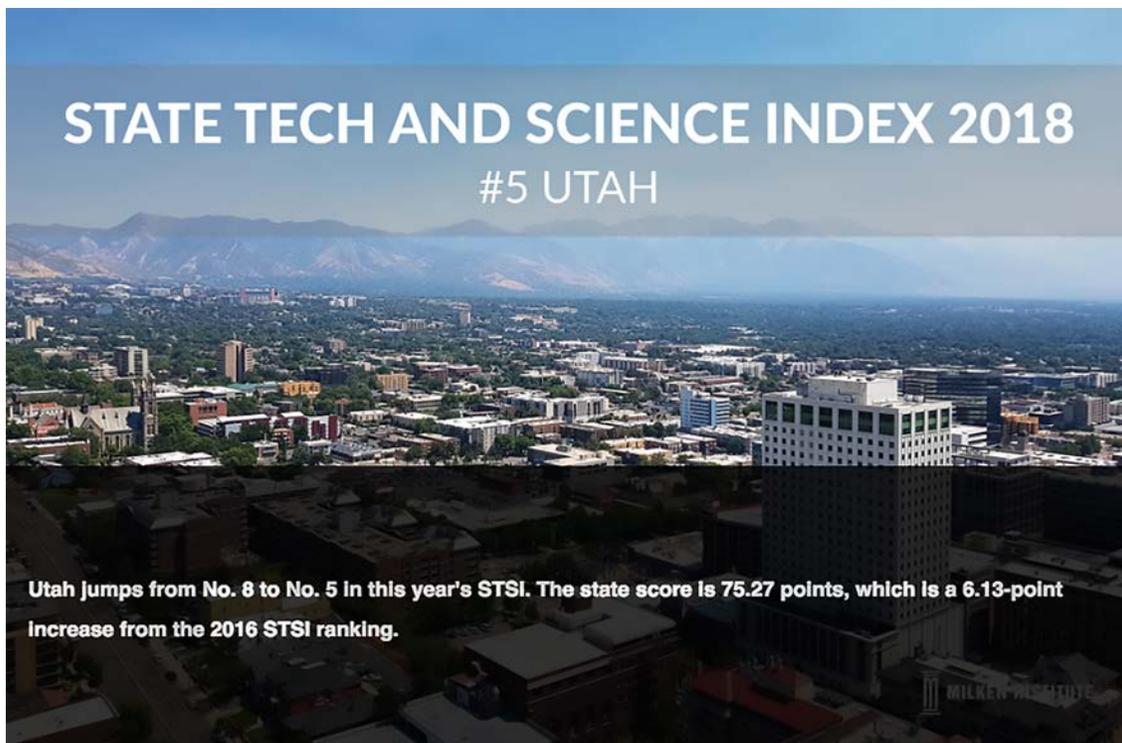


[View this email in your browser](#)



January 2019 Newsletter



Utah Surges to Top 5 Spot on the Milken 2018 State Technology and Science Index

"We are excited to see Utah recognized as a leader in STEM talent development. The Utah STEM Action Center represents an investment by the state to continue to build student interest and success in STEM-related

education and careers,” says Tamara Goetz, STEM Action Center executive director.

Utah’s continued economic strength pushed it to the 5th highest ranked state on the [Milken Institute’s 2018 State Technology and Science Index](#).

The Milken Institute undertakes this study every two years to provide “a benchmark for policymakers to evaluate their state’s capabilities and formulate strategies for improving STEM (science, technology, engineering and math) education, attracting businesses, and creating jobs in the tech sector.” An important factor in the report are the number of patents issued and doctoral degrees granted in each state.

The index looks at five different areas to rank the states: research and development inputs, risk capital and entrepreneurial infrastructure, human capital investment, technology and science workforce, and technology concentration and dynamism. Using these five key indicators, Utah jumped from No. 8 overall in 2016 to its current No. 5 spot.

[Read More](#)

STEM NEWS



ROBOTICS TRAINING

STEM & Robotics Training - Empowering Educators to Teach Robotics. Having a great robotics platform is only part of the recipe for a successful robotics program. Confident and knowledgeable teachers are vital to providing a rich learning environment for students. Free 1-hour Teacher Training Sessions available.

[Read More](#)



CenturyLink STEM Excellence Award

Altamont High School 8th grader and CenturyLink STEM Excellence honoree Sydney Nielson (above) is as much a STEM star as she is a stellar scholar and student mentor.

[Read More](#)



Expectations for Students with Disabilities Survey

Please help USBE support our students with disabilities by filling out this survey.

[Survey link](#)



Program offers students a refuge in STEM

The afterschool program, held annually at U of U, enrolls approximately 100 refugee and immigrant students in grades 7-12. About 30 people attend the program on any given day. More than 90 percent are minority students, with heavy representation from the Sudanese, Bhutanese, Congolese, Nepalese, Chadian, Ethiopian, Somali, Iraqi, Sierra Leonean, South Sudanese, and Rwandan refugee communities.

[Read More](#)



Utah Students Need STEM

Utah's technology industry is thriving, with headlines and op-eds in recent years declaring the state a "high-tech mecca" rivaling even Silicon Valley. And yet, according to LinkedIn, this job growth has also led Salt Lake City to be among a handful of U.S. cities where the skills gap around tech jobs is now widening.

[Read More](#)



How one woman excelled in the Utah Tech scene

"We have a high school program called SheTech, a STEM activation and engagement platform for girls. Over 12,000 girls have been through the program, including 2,000 this year alone. We are changing their trajectories and helping them understand how much opportunity there is for them in tech," says Ms. Tetro. "90 percent of the girls that come through SheTech say they don't know any women in STEM, so we are here to be their mentors and role models."

[Read More](#)



14 EDTech YouTube channels to watch in 2019

When it comes to edtech-focused YouTube channels, the International Society for Technology in Education is a good place to start. ISTE functions as a premier membership organization, produces the most widely

STEM Day on the Hill

STEM Day on the Hill: Mark your calendars!

The Utah STEM AC wants to show you the LOVE. STEM LOVE! Join us on Wednesday, February 6, 2019, at the State of Utah Capitol Rotunda from 7:30-9:30 a.m. where we will showcase what our partners are doing to increase awareness and engagement in STEM! For [more information](#), please contact: Katherine Kireiev at (801)538-8747 or kkireiev@utah.gov.

recognized document for standards of technological education, and hosts one of the most popular edtech annual conferences.

[Read More](#)



We are THRILLED to announce our first Utah STEM Foundation Entrepreneur Challenge, benefiting Girls Who Code Clubs!

The STEM Foundation (the STEM Action Center's nonprofit) has partnered with industry sponsors to support Computer Science education and entrepreneurship opportunities in the state. The Entrepreneur Challenge will focus on the projects created during this school year. Awards will be given to those that best address issues facing girls today (social, civic engagement, environment, etc.). Participants should be prepared to pitch their projects, emphasizing why the project was created, and the project's anticipated impacts.

Award categories will include:

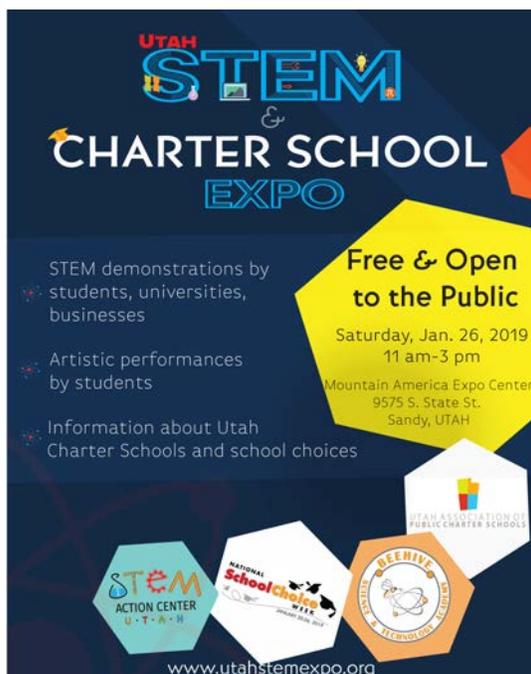
- Essay Contest (elementary programs)
- Peer Mentor Award
- Facilitator Award
- Club Challenge Award

Awards will be accompanied by grant funds for scholarships, purchasing equipment, field trips, or expanding school Computer Science programs. Awardees will be featured at a ceremony at the end of the school year.

Applications are open to all Girls Who Code clubs statewide. Detailed application guidelines, timelines, rubrics, and instructions will be sent out in early January, with applications opening mid-spring. Details on the ceremony date and location will also be forthcoming.

Many thanks to our generous sponsors—Carbonite, Comcast and Centeva—for supporting this groundbreaking event!

STEM EVENTS



UTAH STEM CHARTER SCHOOL EXPO

STEM demonstrations by students, universities, businesses

Artistic performances by students

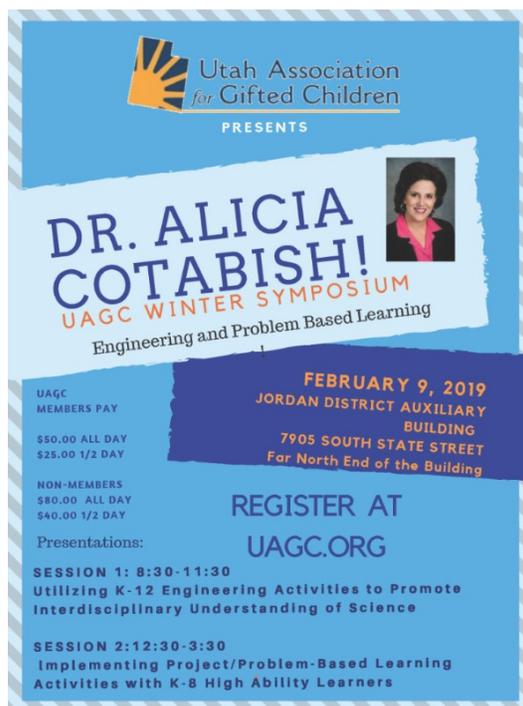
Information about Utah Charter Schools and school choices

Free & Open to the Public

Saturday, Jan. 26, 2019
11 am-3 pm

Mountain America Expo Center
9575 S. State St.
Sandy, UTAH

www.utahstemexpo.org



Utah Association for Gifted Children
PRESENTS

DR. ALICIA COTABISH!

UAGC WINTER SYMPOSIUM
Engineering and Problem Based Learning

FEBRUARY 9, 2019
JORDAN DISTRICT AUXILIARY BUILDING
7905 SOUTH STATE STREET
Far North End of the Building

UAGC MEMBERS PAY
\$50.00 ALL DAY
\$25.00 1/2 DAY

NON-MEMBERS
\$80.00 ALL DAY
\$40.00 1/2 DAY

REGISTER AT
UAGC.ORG

Presentations:

SESSION 1: 8:30-11:30
Utilizing K-12 Engineering Activities to Promote Interdisciplinary Understanding of Science

SESSION 2: 12:30-3:30
Implementing Project/Problem-Based Learning Activities with K-8 High Ability Learners

UPCOMING STEM EVENTS

- January 12, 2019 - Doktor Kaboom at Kingsbury Hall - It's just rocket science - [More information](#)
- January 14, 2019 - CenturyLink STEM Excellence Award - Jazz Game - [More information](#)
- January 26, 2019 - Utah STEM and Charter School Expo - Mountain America Expo - [More information](#)
- February 6, 2019 - STEM Day on the Hill - 7:30 am - 9:30 am at the Capitol Rotunda - [More information](#)
- February 8, 2019 - Stars Basketball "Education Night" - [More information](#)
- February 9, 2019 - CenturyLink STEM Excellence Award - Jazz Game - [More information](#)
- February 23, 2019 - SLC Brain Bee (annual neuroscience competition) - [More information](#)
- March 14, 2019 - CenturyLink STEM Excellence Award - Jazz Game - [More information](#)
- April 9, 2019 - CenturyLink STEM Excellence Award - Jazz Game - [More information](#)
- June 10, 2019 - STEM Best Practices - Davis Conference Center, more information to come
- July 15, 2019 - Altec Design Web Scholarship applications due - [More information](#)

STEM PROGRAMS & GRANTS

CenturyLink STEM Excellence Award:

Nominate your standout STEM Student today!

In partnership with the Utah Jazz and CenturyLink, the STEM Action Center will recognize outstanding students in STEM. Every month during the NBA season, one 6th-12th grade Utah student will receive the CenturyLink STEM Excellence Award during a Utah Jazz home game. Awardees will receive two (2) tickets to the Jazz game where they will receive on-court recognition at half-time, be featured on the scoreboard, and be given a personalized jersey. Please see official rules for details.

<https://stem.utah.gov/centurylinkstemexcellenceaward/>

STEM Professional Learning Grants

The STEM Action Center has a professional learning opportunity grant available to all public K-12 education institutions. This project is designed to help schools determine what their needs are regarding STEM professional learning, and then help implement. Applications can be submitted by either a single school or a group of schools. Plans can cover either a 1-year plan or 3-year plans.

The application for this project opens Feb. 11, 2019, and must be submitted by *March 29, 2019* to be considered for funding. An updated RFP will be available by the beginning of February.

[More information available here](#)

STEM Math Grants

The K-12 Math Personalized Learning Software Grant is opening soon!

The K-12 Math Personalized Learning Software Grant provides schools and districts with access to a selection of personalized learning software programs. The available programs have gone through a rigorous evaluation process and have demonstrated a statistically significant relationship between program use and improved student outcomes in math. [More information available here](#)

STEM SCHOOL DESIGNATIONS

If anyone is interested in helping review STEM School Designation applications, they can sign up on the [website](#).

We currently have 15 schools preparing STEM School Designation application portfolios. Wish them luck! To be a reviewer in January, sign up on our web page.

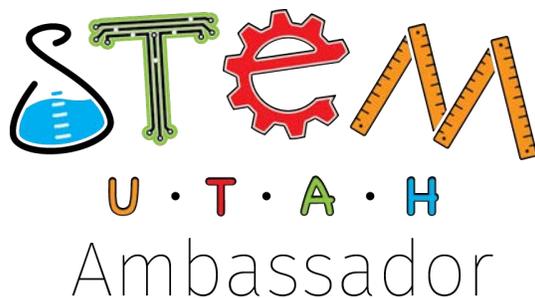
[To see a list of our STEM School Designation Awardees](#)

STEM BUS



On January 14th, the Utah STEM Bus will visit Moroni Elementary in North Sanpete School District. Moroni Elementary has a proficiency rate of 48.5% in Science and 46.1% in math. Both of these scores are an improvement from 2017. The STEM Bus hopes to help teachers implement STEM concepts in the classroom in unique ways by giving them resources and guidance to continue to improve these scores. When kids hear about new and interesting jobs in STEM fields, they are able to see the connection between the subjects that they learn in school and what they may want to do as a career when they grow up. When surveyed, student interest in getting a STEM job consistently doubles after a STEM Bus visit. If you would like the STEM Bus to visit your school, please go to stem.utah.gov/stembus for information about registration.

STEM AMBASSADORS



The Utah STEM Action Center is always looking for high school and college students as well as recent college graduates and industry professionals who have a passion for STEM and would like to volunteer their time promoting science, technology, engineering, and math to K-12 students and educators throughout the State of Utah.

[Apply to become an ambassador](#)

FUN FACTS

How Do Snowflakes Form? No two snowflakes...

They say that no two snowflakes are the same. That may be true, but snowflakes share some striking similarities. Take a look at these snowflakes (on the left):



Credit: Kenneth G. Libbrecht

See a pattern? It may not be immediately clear, but they are all symmetrical in a similar kind of way. The fancy way to say this is that they all have “six-fold radial symmetry.” In other words, if you draw six evenly spaced lines out from the center of the flake, you will notice that the shape on that line is repeated on the five other lines.

[Read more](#)



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Utah Governor's Office of Economic Development

Our mailing address is:

stem@utah.gov

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