

November 2019

THE CONNECTICUT BUILDING A PRESENCE FOR SCIENCE NETWORK IS SUSTAINED THROUGH THE ADVOCACY OF THE CCAT, CONNECTICUT SCIENCE SUPERVISORS ASSOCIATION, THE CONNECTICUT SCIENCE TEACHERS ASSOCIATION, AND THE CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING

State Coordinator.David Lopath lopath@comcast.net , List Moderator..Eloise Farmer eloisef302@gmail.com
NAMES AND E-MAIL ADDRESSES OF OUR POINTS OF CONTACT AND KEY LEADERS ARE NOT SHARED WITH ANY OTHER ENTITY



Professional Development Opportunities! Are you interested in

high quality, low cost, Teacher Professional Development opportunities? Visit CSTA.wildapricot.org and click on Opportunities. You will not be disappointed. Contact us if you have questions. CSTA.wildapricot.org



Join the CSSA! www.cssaonline.org All Teacher leaders

welcome You do not have to be in a formal Supervisor Position, but should be interested in helping keep your colleagues informed on the latest in science education.

A FREE workshop designed exclusively for [greenleaf schools](#) Meet other Green LEAF schools • Learn what is NEW in Green LEAF • Develop and support your school's Green Team • Evaluate your school's progress & set goals using the Green LEAF Self-Assessment tool • Share success stories and challenges • Build resources for school implementation Tuesday, November 5, 2019 (Election Day) 9:00 am- 3:00 pm Connecticut Forest & Park Association 16 Meriden Rd., Rockfall, CT



CONNECTICUT STEM FOUNDATION, INC.

CONNECTICUT STEM FAIR NEEDS JUDGES
The CT STEM Fair needs your help:

Judges are needed for the CT STEM Fair that will be held Saturday, February 8, 2020, at Joel Barlow High School in Redding CT. Upwards of two hundred Connecticut science students participate in this fair. They enter research projects or research proposals in the following areas: Behavioral Science, Environmental Science, Health&Medical Sciences, and Physical Science. Each student has a face-to-face interview by two separate judging teams. As you can imagine, a lot of judges are needed. If you are interested in participating as a judge in this very worthwhile endeavor, please contact Fran Lichtenberg. Her e-mail is: judges@snet.net. More information about the CT STEM Fair can be found at the website of its parent organization, Connecticut STEM Foundation, ctstemfoundation.org



Don't wait until the last minute! **[Register now](#)** for the Connecticut Science Educators Conference!

Some of the Presentations at the conference:

Confused about the new Science Assessment formats? Our conference will help you with the latest resources.

*Resources to Facilitate Design and Development of Classroom NGSS Assessments - Presentation - Susan Maebh Kelly and Teresa DeBrito

*Equitable 3D Classroom-Level Assessments - Todd Campbell and Ron Michaels

Love Physics?

* Integrating Computational Modeling in High School Introductory Physics - Lucas Walker

Need more STEM Integration?

* Building a STEM Pathway - Sharon Gusky and Christine Gamari

* Engineering Design: The Systematic Process - Amy O'Neal, JASON Learning

Full program is available at csta-us.org.

NATIONAL MARINE SANCTUARIES WEBINAR SERIES

Catch and Release: Large whale entanglements and response efforts to mitigate the threat Entanglement or by-catch is a global issue that affects many marine animals, including large whales like the charismatic humpback whale. Hundreds of thousands of whales die worldwide each year, but the impacts go beyond mortality. When conditions and resources allow, trained responders under NOAA's Marine Mammal Health and Stranding Response Program attempt the dangerous task of freeing whales from life-threatening entanglements. However, the ultimate goal is to gain information to reduce the threat for whales and humans alike. The Hawaiian Islands Humpback Whale National Marine Sanctuary working closely with its partners and the community, coordinates response efforts for Hawaii, the principle breeding and calving ground of humpback whales in the North Pacific. The effort represents a unique and valuable opportunity to gain a broader understanding of large whale entanglement threat. Learn more about whale entanglements and response efforts from expert Ed Lyman.

This webinar series provides formal and informal educators with educational and scientific expertise, resources, and training to support ocean and climate literacy in the classroom. Visit our [archives](#) to watch past webinar recordings.

More information on the series and upcoming webinars can be found [here](#). After registering you will receive a confirmation email containing information about joining the webinar. The Webinar ID is 462-571-163.



CREC's Next Generation Science Standards Assessment Development Series II Sessions

Assessment of the three dimensions of the Next Generation Science Standards (NGSS) is a critical component of implementation. As a part of the CREC NGSS consortium's work, we will be offering a second series of assessment development sessions to support districts implementation of NGSS. This cohort of participants will engage in the assessment development process to produce formative and summative components to monitor progress and assess student achievement in relation to the three dimensions of the NGSS.

Cost: \$250 per person

Time: 8:30 AM - 3:30 PM

Location: Grade specific, follow the links below.

Please Note: Available only to districts using CREC's NGSS unit bundles and the same person must attend both days.

Session Dates By Grade

Kindergarten

12/4 & 12/5

Grade 1

11/25 & 11/26

Grade 2

11/21 & 11/22

Grade 3

11/8 & 11/15

Grade 4

11/4 & 11/6

Grade 5

10/29 & 10/30

Physics

5/6 & 5/7

Incorporating Games and Game Mechanics without Losing Rigor



People like to play. Incorporating game mechanics into your class can improve student engagement and deepen student understanding. Although gamification is becoming more common in schools, it is still often dismissed as lacking the academic rigor we all want in the classroom.

However, there are a wide variety of ways to gamify your class content and structure. All of which, when used correctly, encourage higher order thinking and complex tasks. Participants in this workshop will learn how to infuse gamification (with or without the help of technology) into their classroom without lowering expectations for rigor.

Date: 11/26/19

Time: 8:30 - 3:00

Location: 55 Van Dyke Ave, Hartford, CT 06106

Price: \$125

For workshop information, email Linda Darcy at ldarcy@crec.org. For assistance with registration, contact MaryJanet Candeias at mcandeias@crec.org or 860-509-3687

Win Classroom Prizes in This K-12 STEM PBL Competition

The Toshiba/NSTA ExploraVision science competition challenges students to envision and communicate new technology 20 years in the future through collaborative brainstorming and research of current science and technology. It's not too late to register your teams for this project-based learning competition! **Deadline for submissions is February 10.**

Download our [free lesson plans for teachers](#) and [register](#) online today!
The Toshiba/NSTA ExploraVision Team



Be a Part of NSTA's Newest Virtual STEM Conference!!

Saturday, December 7

10:00 a.m.–2:00 p.m. ET

[Connecting In-School and Out-of-School STEM Learning and Teaching](#)



Sign up now to learn about the value of connecting in-school and out-of-school STEM activities, hear from educators who have implemented successful programs, and explore ways you can connect your learning environment to settings outside your building. [Overview](#) [Presenters](#)

Register Now

\$10 "Early Bird" discount when you register by November 20!

All sessions will be recorded for registered participants to watch later, on-demand.

You can purchase a certificate as evidence of attendance and participation for an extra \$9.95.

Connecticut Science Educators Annual Conference
Heritage Hotel & Conference Center, Southbury

Friday November 8, 2019 – 5:30 PM to 10:00 PM

Star Party

An Evening of Astronomy

Presented by

Talcott Mountain Science Center

And

Connecticut Science Teachers Association

5:30 – 6:30 Registration and Cash Bar Open

**6:30 – 10:00 Space Exploration: Past, Present, and Future
Celebration of Apollo 11 and 12 Moon Landing**

Star Gazing with Telescopes	Astronomical Phenomena
Astronomy Activities and Resources	Late Night Movie: Apollo 13
Networking	Social – Snacks and Cash Bar

Saturday, November 9, 2019 – 8:00 AM – 4:00 PM

**Workshops for elementary, middle, high school and non-traditional
science educators**

NGSS resources and assessment design tools	Exhibitors and Vendors
Keynote Speaker – Okhee Lee PhD, New York University	
STEM—For All Students Door Prizes	President's Reception Fabulous Luncheon

Register Online at:

csta-us.org

Early bird registration closes September 30

Advance Registration Oct 1 – Nov 1

On-site Registration Nov 1 – Nov 9



PROFESSIONAL DEVELOPMENT WORKSHOPS

All workshops engage educators in the use of materials and provide, small group work and applications to NGSS and Common Core implementation, materials support, educator planning initiatives, and direct use in classrooms through investigations and real world explorations. Fee for each workshop is \$40.00 per educator with discounts for 2 or more educators from the same school/organization, \$35.00 or \$30.00 for three or more. **Some workshops are supported by DEEP grant funding and are offered free and can also provide a stipend for schools or educators. All workshops take place at Kellogg Environmental Center located at 500 Hawthorne Ave, Derby CT 06418, unless otherwise noted. Details found on the registration link. [Register here!](#)** For questions and additional information please contact susan.quincy@ct.gov or susan.d.robinson@ct.gov

Natural Phenomena and Matter Interactions for Physical Science

November 13, 2019

Wednesday, 10am – 3pm

Marine District Headquarters, 333 Ferry Rd., Old Lyme CT.

Using the outdoors we will explore activities to help bring the physical science of matter interactions come alive. This workshop will connect the standards for K -5 using NGSS standard PS1-A. Take a look at natural phenomena using water and plants to help awaken curiosity in students. Registration is required. This workshop is supported by DEEP grant funds and is free with a stipend for \$100.00.

Getting Little Feet WET

November 20, 2019

Wednesday, 10am – 1pm

Do you work with Preschool or provide Early Childhood Education programming? This workshop is designed just for you and your age group. Learn methods to engage the young child in exploration and skill building using water. Natural water play and hand on activities provide a learning experience that builds concepts of understanding and basic physical skills and language. Take part in this hands on workshop and receive classroom ready materials and kits. Fee for workshop is 40.00 per person, discounts for 2 or more from same location. Registration is required.

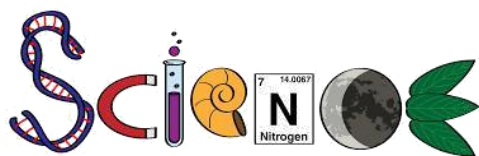
The Problem with Pollinators

December 10, 2019

Tuesday, 10am – 2pm

Let's take a look at the relationship between plants, pollinators and humans. Using a wide variety of pollinators we will take a look at how structure/function is developed and reasons for decline of many species. Materials and resources expand school gardens and habitat areas using more curriculum connections. Registration is required. Fee for the workshop is 40.00 and provides you with a collection of lessons and resources. Free for Green LEAF Schools.

Workshops may also be arranged for school or district professional development days. Call Kellogg Environmental Education Center, 203-734-2513 to discuss your school or district needs. We would be happy to tailor make a workshop for your educators. There may be a fee to cover cost of materials that is flexible, based on your goals and resource supplies.



CT Conversations in Science:
CSSA and CSTA Sponsored

CT Conversations in Science

When: Thursday, Nov. 14th, 2019 5:00PM-7:30PM

Where: Joseph A. DePaolo Middle School in Southington, CT.

Are you a K-12 Educator, Administrator, or Pre-Service Teacher looking to deepen your NGSS knowledge and practice?

CT Conversations in Science: Advancing Coherent and Equitable Systems of Science Education (ACESSE) is a science educator led experience. It is an effort to advance the implementation of Next Generation Science Standards (NGSS) for ALL teachers and students in Connecticut. **It is FREE to all participants.** On this day, teachers from participating districts will meet to engage in 'ACESSE Resource G: Learning to See the Resources Students Bring to Sense-Making' as we build our capacity to identify the range of intellectual resources students use as they make sense of phenomena (See Page 2 for Additional Info).

Register by Friday. Nov. 8 to secure your spot using the link below:

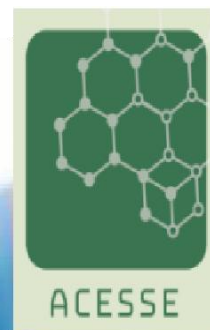
<https://tinyurl.com/CTConversationsScience-ACESSE>



#CTConversationsSci

For more information contact: Todd Campbell (todd.campbell@uconn.edu), Holly Hollander (hollander@ctsciencecenter.org), or Ron Michaels (Ronald.Michaels@ct.go)

Resources Students Bring to Sense-Making



In this workshop, we will build our capacity to identify the range of intellectual resources students use as they make sense of phenomena. Every student has the right to feel and be treated as fully belonging in educational settings. This resource can help support this goal by helping educators develop an asset-based stance towards the various contributions that students bring to making sense of phenomena. The resource starts by highlighting the rationale for culture-based approaches to pedagogy—and then focuses on how to identify and leverage the resources students use in moments of sensemaking.

This learning experience will help participants:

- Explore equity dimensions of sense-making through the science and engineering practices.
- Learn to see different ways students contribute to making sense of phenomena—and connect to science.
- Better appreciate that navigating multiple ways of knowing is the basic human condition—not the exception for some students.
- Make a commitment to shape instruction to support diverse sense-making.

This workshop provides participants with an opportunity to explore important theoretical ideas by exploring examples of how learners engage in diverse sense-making. Participants will learn about some of the challenges that less expansive learning environments can cause for learners from non-dominant communities. This resource is estimated to take between 250-300 minutes (4 - 5 hours), depending on the choices of the facilitator in scenario selection. It can be used to support a full day of professional development; it has also been run as a one-hour “quick overview”.

STEMteachingtools.org/pd/SessionG



The ACESSE Project is funded by the National Science Foundation through the Education and Human Resources Core Research program under grant #1561300. No funder is responsible for the content of the resource.



CONNECTICUT SCIENCE FAIR ASSOCIATION, INC

45 Coles Road, Cromwell, CT 06416
Frank LaBanca, EdD, Fair Director
director@ctsciencefair.org

Fall, 2019

The **Connecticut Science and Engineering Fair** is the oldest and most prestigious STEM (Science, Technology, Engineering, and Mathematics) event in the State. It is my pleasure to invite your school to participate in the **2020 Fair at Quinnipiac University**, Hamden, March 9-14. Celebrating our 72nd year, the Fair's mission is to interest students in science and engineering careers. Fair projects typically examine problems and provide solutions to current environmental, medical, biological, chemical, engineering, and societal issues – no TV-personified, old-school volcanoes here! Previous top-performing Fair projects have caught the attention of major national research laboratories, garnered patents, resulted in start-up companies, and have been published in scientific, peer-reviewed journals.

The Fair and its organizational committee is here to support experienced schools as well as those who might be “first timers”: we provide workshops for teachers and students, technical support online and by phone, and access to a network of practicing scientists and engineers.

2020 Highlights and Changes

- ☐ **PROJECT QUOTAS FOR SCHOOLS**– 10 Middle School and 15 High School
- ☐ **PROJECT REGISTRATION FEE**– \$45 per project.
- ☐ **SATURDAY AWARDS CEREMONIES**– Finalist and Special Awards Ceremonies will be Saturday, March 14.
- ☐ **SCHOOL VISITS THIS YEAR**– Thursday, March 12, 9:00 am to 1:30 pm.
- ☐ **PUBLIC VIEWING**– Thursday, March 12, 1:30 pm to 8:00 pm.
- ☐ **URBAN SCHOOL CHALLENGE**– The judging format for students participating in the Urban School Challenge is changing. Preliminary judging will take place Monday, March 9, from 9:00 am until 12:30 pm. ***Students are required to attend the entire judging session.***
- ☐ **TEN SPECIAL CATEGORIES**– Biotechnology, Alternative/Renewable Energy, Applied Technology, Computer Science, Engineering, Environmental Science, Mathematics, Future Sustainability, Technical High Schools, and Women In Science & Engineering.
- ☐ **OVER \$200,000 IN AWARDS**– We expect more than 400 awards will be presented at the Fair by its Category and Special Award Sponsors.
- ☐ **INTERNATIONAL COMPETITIONS**–Seven top winning high school projects, either individual or team, will compete in the Intel International Science and Engineering Fair (ISEF) Anaheim, California in May. High school finalists and one eighth grade project will be awarded the opportunity to compete at the GENIUS Olympiad, Oswego, New York in June.
- ☐ **BROADCOM MASTERS**– Top winning middle school students in all categories will be given invitations to compete.
- ☐ **WORKSHOPS**– Check our website for Fall and Winter workshops for teachers and students.

Register on-line at <http://www.ctsciencefair.org>. Regional Fair allocations are handled on a case-by-case basis. Deadline for school registration is October 30. There is a \$45 per project non-refundable registration fee due at the time of registration. Your school need not have a science fair to send students to the CSEF.

Refer registration questions to:

School Registration:
Dr. Jack Solomon, School Registration Chair
schoolreg@ctsciencefair.org

Project/Student Registration
Mrs. Evelyn Brown, Project Registration Chair
registrationhs@ctsciencefair.org

Fair information is updated frequently on our website at www.ctsciencefair.org. A wealth of information and resources can be found there.

We look forward to seeing you and your students at the Fair.

For the Fair Committee,

A handwritten signature in black ink, appearing to read 'Frank LaBanca', is written over a horizontal line.

Frank LaBanca
Fair Director

An Affiliate Fair of the Intel International Science and Engineering Fair
www.societyforscience.org/isef



72nd Year
Fair Week
March 9 – 14, 2020

MANDATORY ATTENDANCE

Student **Must** Be Present

Judging

Urban School Challenge - Preliminary Judging Interviews 9 AM to 12:30 PM,
Monday, March 9: Students are required to attend the entire session

Wednesday, March 13 – If you are a Finalist- 8:30 AM to 1:15 PM Saturday,
March 16 – If you are a Finalist or Special Awards Winner

To Receive a T-Shirt

Come and check-in anytime - 1:00 PM to 7:00 PM, Monday, March 9 Check-in and setup takes approximately 1 hour. Come at a time that is best for you. (Urban School Challenge must attend 9:00 AM to 12:30 PM for Preliminary Judging.)

If your project is set up by another person, this person should be able to answer any rules and safety questions or establish phone contact with you for discussions with the rules and safety committee if the need arises.

Saturday Awards Ceremonies

If you are chosen as a Finalist or Special Awards winner, Award Ceremony attendance is **mandatory**. Failure to attend may result in **forfeiture of award**. Exemptions are granted for religious observances and special circumstances.

Excused absences for special circumstances will be considered if the request is emailed to the Fair Director by no later than 6:00 PM, Saturday, March 7. Email to:
director@ctsciencefair.org

Family vacations, previous social commitments, college visits, and ski trips are not considered extraordinary circumstances.

For Weather Postponements:

Channel 3 WFSB-TV, Channel 8 WTNH, www.ctsciencefair.org or Fair Week phone 203-582-3361

NEW! Our Changing Earth

Permanent Exhibition - Opening October 18

Explore Connecticut's changing landscape throughout the past, present and into the future inside this stunning exhibit gallery featuring the latest scientific findings. Students will make curriculum connections as they investigate the impacts of our changing climate and how decisions we make will affect the future of our planet. The immersive experience features hands-on activities that bring textbooks to life

- Explore historical flood heights on a scale version of the Bulkeley Bridge and a flood height interactive.
- Record your own weather forecast learn how advancing technology is helping us better forecast the weather in the all-new WFSB Early Warning Pinpoint Doppler Radar Exhibit.
- Experience hurricane-force winds in the Hurricane Simulator.
- Learn about magma flow and plate tectonics as you journey to the center of the earth inside the giant geodesic dome, complete with vibrating core.
- Step into the shoes of a first-responder in the life-size, climb-in rescue raft.
- See the story of trash and how humans are impacting our Earth.
- Stand next to a towering ledge of ice to see the correlation between global temperatures and glacial ice flow.

LEGO Build the Change

Special FREE Program for Grades 1-7

ONLY \$8 PER STUDENT!

LEGO® Build the Change is all about creativity, imagination, collaboration, and communication. It enables children to use LEGO® bricks as a tool to communicate and express themselves and create enduring memories. LEGO® Build the Change event participants will have access to hundreds of LEGO® bricks and their imaginations to build what they think will be a great change to the communities they live in. This 45-minute hands-on program is included with a paid Science Center field trip admission.

Book now specifically for the LEGO Build the Change program and get your field trip for only **\$8/per student**. First-come, first-served, limited availability.

NEW! Mazes & Brain Games

Traveling Exhibit - Now Open

Put your brain to the test in our newest hands-on exhibit, Mazes & Brain Games. Maneuver your way through this mind-boggling collection of 3D puzzles and full-body games. You will need to use your smarts, logic, balance, memory, and dexterity to solve our mazes and puzzles. Visitors of all ages will find a challenge in Mazes & Brain Games. You'll tease your brain at the brain teaser tables, build a 3D marble maze and watch it work, bust out a beat in the music maze, multiply yourself in the infinity mirror, and much more.

NEW! STEM Career Showcase

November 13

Looking to inspire your student's interest in the STEM fields? Look no further. The STEM Career Connections Showcase creates an open and innovative environment that connects professionals working in the STEM fields with students, families, and teachers. STEM professionals from a wide variety of backgrounds share innovations in science and technology as they aim to inspire and develop the next generation of thinkers.

Presented by: **The Hartford** and **Cognizant U.S. Foundation**

NEW! Themed Weeks

Mark Your Calendars

Make your field trip memorable and unique by visiting during one of our special themed weeks. We're amping up your field trip experience with extra opportunities for content-rich, hands-on science in our exhibit galleries.

Earth Science Week - October 15-18

Exploring Matter Week - December 10-13

National Engineers Week - February 18-21

Brain Awareness Week - March 17-20

DNA Days - April 21-24

- The International Ocean Discovery Program (IODP) in the U.S. is now accepting applications to sail as an Onboard Outreach Officer on the JOIDES Resolution for 2 upcoming expeditions: Expedition 390 South Atlantic Transect 1 (October 5, 2020 - December 5, 2020), and Expedition 393 South Atlantic Transect 2 (April 26, 2021 - June 26, 2021). Sail on board the ship, be a part of a 30-member science party, conduct live ship-to-shore events to classrooms around the world, and come up with creative educational/outreach products! We welcome applications from classroom teachers, informal science educators, artists, videographers, writers, social media experts, and any who can make a good case for themselves. Selected applicants will have an opportunity to learn shipboard science alongside the expedition's science party and translate the exciting science happenings to the general audience. Successful applicants will be creative, flexible, friendly, and hardworking. Some geoscience background is helpful. All expenses for U.S. Onboard Outreach Officers for travel to and from ports of call, and a \$10,000 stipend are paid by the U.S. Science Support Program for IODP. Onboard Outreach Officers are selected through a competitive application and interview process. The selected individual(s) will also be flown to a 3- day training session prior to their expedition. Non-U.S. applicants will be directed to their country IODP office but are still encouraged to apply. Expedition 390 and 393 have a focus on microbiology. Before writing your project proposal, please familiarize yourself with the joidesresolution.org website and these specific resources: Adopt-AMicrobe and <https://joidesresolution.org/microbiology-resources/>. To apply, you will need to complete the application through our on-line application portal. During the application process, you will be asked to rank the expeditions in which you are interested. Our application has the following components:**

 - A completed application form 13
 - An up-to-date C.V.
 - A recommendation letter
 - Contact information for 2 additional references
 - A one-page proposal for what projects you would like to do while onboard
 - Answers to 3 short essay questions
 - A letter of support from your administrator, if needed

Application deadline is November 17, 2019.
- Teaching and Learning Strategies for Higher Education** [External link](#) The 8-week Teaching and Learning Strategies for Higher Education online short course is delivered by Harvard's Bok Center for Teaching and Learning, in association with HarvardX. Students in this course will engage deeply with the most relevant research on effective teaching methods in the higher education context, while refining their own practices, portfolio, and teaching philosophy. Sponsored Program Professional Development Grants For Teachers NEA Foundation Learning and Leadership Grants [External link](#) Amount: \$2,000 to \$5,000 Description: The NEA Foundation for the Improvement of Education [External link](#) awards grants that support the professional development of public school teachers and faculty in public institutions of higher education. Grants may fund professional development experiences, such as summer institutes or action research, mentoring experiences or lesson study. Professional development must improve practice, curriculum and student achievement, and recipients must put professional leadership into practice by sharing what they learn with their colleagues. Grants cannot be used to fund a degree. For specific information, visit the NEA Foundation's application instructions [External link](#) page.
- Beacon Technology Teacher Grant** [External link](#) Amount: Up to \$1,000 Description: This grant is for teachers who need an extra bit of funding for classroom supplies, educational subscriptions, apps for students, and more. Beacon offers this grant 1-2 times a year. To be considered, submit a tech-focused lesson plan following their guidelines and instructions [External link](#) . Winners will also have their lesson plans featured on the Beacon blog!
- Albert Einstein Distinguished Educator Fellowship Program** [External link](#) Amount: \$6,000 monthly stipend, \$1,000 monthly living expenses Description: This grant is an excellent and unique professional development opportunity for K-12 teachers who have at least five years of experience teaching in STEM subjects. STEM educators participate in 10- or 11-month positions in federal agencies or U.S. congressional offices across the country, during which time they are given the chance to have a direct impact on education programming, policy and reform efforts. After the program, teachers return to the classroom with a deeper understanding of STEM education and experience that will enrich instruction and benefit students. You can learn more about the fellowship application on the Albert Einstein Distinguished Education Fellowship Program website [External link](#) .
- Elmer's Teacher Tool Kit Grant** [External link](#) Amount: \$100 to \$500 Description: The Kids in Need Foundation [External link](#) , a leading organization aiming to provide free school supplies to students in need, has partnered with the educational

product company Elmer's External link to create grants specifically for classroom supplies. The Teacher's Tool Kit Grant lets K-12 teachers in high-needs schools fund classroom projects that aim to foster creativity and critical thinking in students. Grants are awarded based on financial need, a description of how the project meets the students' needs and the number of students who will be involved. The application is available on the Kids in Need Foundation's website External link .

- ING Unsung Heroes Program External link Amount: multiple awards Description: ING Commercial Banking External link established the Unsung Heroes in 1995 in an effort to recognize teachers implementing new teaching methods and techniques for improving student learning. The award application is centered on a description of previous projects teachers have worked on or plans they would like to enact in the future to benefit their classroom. Applications are judged on innovation, creativity and the potential to positively influence students. Each year, 100 finalists receive 8 \$2,000 grants, with at least one grant awarded in each of the 50 states. Of those 100 finalists, three winners are selected to receive awards of \$25,000, \$10,000 and \$5,000.
- AIAA Foundation Classroom Grant Program External link Amount: \$200 Description: The American Institute of Aeronautics and Astronauts is dedicated to the importance of STEM education and awards \$200 in grants to K-12 teachers who want to incorporate new ways of teaching science, technology, education and mathematics into their classroom. Funds can be used to purchase laboratory equipment, math and science software, robotics supplies, and other items that will add depth and dimension to your lessons.
- NWA Sol Hirsch Education Fund Grants External link Amount: \$750 Description: The National Weather Association aims to support the importance of meteorology in elementary, middle and high school by awarding grants to teachers who demonstrate a commitment to improving the quality of meteorology education, a science subject that is frequently overlooked. Funds may be used for the purchasing of materials or equipment, the establishment of community outreach science programs or professional development. You can apply for the grant by visiting the NWA Sol Hirsch Education Fund Grants website External link .
- ACS-Hach High School Chemistry Grant External link Amount: \$1,500 9 Description: The American Chemical Society External link gives innovative chemistry teachers the opportunity to put their ideas into action. The ACS-Hach High School Chemistry Grant was established to promote dynamic and engaging scientific exploration in students. It is awarded to high school teachers who wish to enhance classroom learning and raise students' interest in chemistry. Funds can be used to purchase laboratory equipment, supplies and instructional materials, but also the cost of professional development opportunities, field studies and science outreach events.
- Delta Education/Frey-Neo/CPO Science Education Awards for Excellence in Inquiry-Based Science Teaching Amount: \$3,000 Description: This is a grant offered by the National Science Teachers Association External link (NSTA) to recognize the outstanding efforts of teachers to implement an inquiry-based approach to science education that stimulates interest and exploration in students. The grant covers up to \$1,500 in travel expenses to attend the NSTA national conference, as well as \$1,500 for use in the classroom. You can explore any of the other numerous awards offered by NSTA External link .
- Lemelson-MIT InvenTeams External link Amount: up to \$10,000 Description: The Lemelson-MIT Program External link at the Massachusetts Institute of Technology recognizes the important achievements of inventors and has created the InvenTeams External link initiative, a grant program that focuses exclusively on STEM education. The InvenTeams program encourages hands-on engagement and the application of science, technology, education and mathematics concepts to the solving of real world problems. Teams of students and teachers apply for InvenTeams grant External link by finding a timely and relevant societal issue, and conceptualizing an technological invention that can help solve that problem. Up to 15 teams are chosen to receive grants that help fund the actual invention of their idea.



What Is Science Matters? Science Matters is an initiative by the National Science Teachers Association (NSTA) to bring content, news, and information that supports quality science education to parents and teachers nationwide. Science Matters builds on the success of the Building a Presence for Science program, first launched in 1997 as an e-networking initiative to assist teachers of science with professional development opportunities. Building a Presence for Science—now Science Matters—reaches readers in 34 states and the District of Columbia. Why does Science Matter? Science is critical to understanding the world around us. Most Americans feel that they received a good education and that their children will as well. Unfortunately, not many are aware that international tests show that American students are simply not performing well in science when compared to students in other countries. Many students (and their parents!) believe that science is irrelevant to their lives. Innovation leads to new products and processes that sustain our economy, and this innovation depends on a solid knowledge base in science, math, and engineering. All jobs of the future will require a basic understanding of math and science. The most recent ten year employment projections by the U.S. Labor Department show that of the 20 fastest growing occupations projected for 2014, 15 of them require significant mathematics or science preparation to successfully compete for a job. This is why Science Matters. Quality learning experiences in the sciences—starting at an early age—are critical to science literacy and our future workforce. Feel free to publish this information in school newsletters and bulletins, and share it with other parents, teachers, and administrators.