STEM-IN'

Indiana STEM News

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Coming Events of Interest For STEM Educators

US 2020 2017 STEM Mentoring Awards – July 15, 2017 application deadline   US2020 holds the annual STEM Mentoring Awards, which are made possible by the generous support of Chevron and Tata Consultancy Services (TCS). This award series is designed to celebrate the important and innovative work that is building the STEM mentoring movement. This year we are selecting winners in Excellence in Public-Private Partnerships, Volunteer Mobilization, Volunteer Experience, Most Innovative Hands-On Project, and Impact Measurement. If your organization or company has excelled in one of these categories, we encourage you to submit your application at https://us2020.org/sma before the deadline shown below:

July 15, 2017 Application Deadline –

- Most Innovative Hands-On Project
- Excellence in Public-Private Partnerships
- Excellence in Impact Measurement Nomination Form Deadline
- Excellence in Volunteer Mobilization

CoderDojo Indiana Hackathon – July 22, 2017   The CoderDojo Indiana Hackathon will be held on Saturday, July 22nd. It's free to attend and should be lots of fun for any kids you know who are interested in coding! Learn more about it in this blog post! Please register HERE and help us spread the word to anyone you think would like to attend – the more, the merrier!

Draft ESSA Plan for Indiana   The Indiana DOE has released their draft plan for ESSA.   You can find it at http://www.doe.in.gov/essa. The site includes surveys to provide feedback on each section.   Please consider providing feedback, especially in areas when STEM and science seem to be missing from the plan. **The comment period closes July 21.** The final plan is due to the Governor by August 15.

There are no specific accountability measures related to STEM proficiency, instruction, or teacher preparation. STEM is highlighted on pg 89, mostly describing the STEM School Certification process. It does promise an "updated STEM framework" to expand STEM school certifications.

STEM is also highlighted as a career cluster on pg 88, though STEM is actually part of the most of the 11 other careers clusters and not really a separate one.

Environmental Education Association of Indiana Annual Conference – October 13-15, 2017   The Environmental Education Association of Indiana - http://www.eeai.org, has a mission "to work cooperatively to promote opportunities that will educate, motivate, and inspire the citizens of Indiana to conserve natural resources and meet the needs of our society while maintaining a healthy environment now and in the future." If you want to take part in that mission, please consider joining this statewide organization this fall in Brown County Indiana.

Event: 2017 EEAI annual conference: Seeing the Forest and the Trees: http://eeai.org/2017-Conference

- Dates: October 13-15, 2017
- Location: Waycross Camp and Conference Center: http://www.waycrosscenter.org/lodging
- 4879 Richards Road, Morgantown, IN 46160
- Registration: http://eeai.org/2017-Register
- Keynote Speaker: Rue Mapp, founder of Outdoor Afro, see http://eeai.org/2017-Keynote-speaker

Here is a flyer to print up and share. EEAI 2017 conference flyer.pdf

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Grant Opportunities for STEM Educators

Advancing Student Achievement, a program of the Actuarial Foundation   ASA grants support math programs that open students' minds to the practical power of math. The purpose of an ASA grant is to support math enhancement programs that bridge the gap between classroom and real world mathematics. MORE HERE. Deadline: Rolling. Amount: up to $5,000

Afterschool Alliance list of STEM funding http://www.afterschoolalliance.org/STEMfunding.cfm

American Honda Foundation Grants   The American Honda Foundation's funding priorities are STEM education, the environment, job training and

literacy. Nonprofits, public school districts, private/publicelementary and secondary schools are eligible to apply. Funding deadlines are February 1, May 1, August 1, and November 1 each year. The maximum award is $75,000. http://www.honda.com/about?id=honda_foundations

Connect a Million Minds (Time Warner) Connect a Million Minds supports after-school STEM programs, mentorship programs that inspire the pursuit of STEM education and careers, STEM-related competitions, visitations to technology companies and labs, and apprenticeship programs. For more information, go to: http://www.connectamillionminds.com/request-support

DWD Offers $20 Million In Grants The Indiana Department of Workforce Development (DWD) announced $20 million in grants through its Skill UP Indiana! Program to fund employer-led "innovation networks," which will develop solutions to in-demand talent needs across Indiana.

Innovation networks are partnerships among local employers, educators, community organizations, and workforce and economic development partners, all working in collaboration to align community education resources (K-12, career and technical education, adult education, higher education, and incumbent worker training programs) with the skill and talent needs of the area's industries.

Through the innovation networks, employers will have the ability to identify skill needs, validate training/education programs, and establish stronger talent pipelines for priority sectors, providing a higher level of training in high-demand, high-wage fields that will lead to employment for Hoosiers.

Experts estimate that over the next 10 years, more than one million jobs will open in Indiana. While not all of them will require a college degree, the majority will require more than a high school diploma. The Skill UP Indiana! Program will help fill these jobs by providing employers with skilled, job-ready employees.

To learn more about the grant program and how to apply, click here: http://www.in.gov/dwd/skillup.htm

FLEET (Future Leaders in Experience-based Engineering and Technology FLEET is an innovative, web-based naval engineering/ship design competition for high school students. Administered by the American Society of Naval Engineers (ASNE), developed by Navatek Ltd, with support from the Office of Naval Research (ONR), FLEET uses the youth-friendly model of gamification to introduce students to the STEM fields of naval architecture and engineering. Students are challenged to make realistic ship design decisions for naval vessels to conduct a search and rescue mission. Mini-grants are available to offset the cost of technology, staffing, or supplies and materials at the teacher's discretion (up to $500). Check it out at www.fleetengineering.org

Indiana Youth Institute Professional Development Grants and FREE proposal reviews IYI offers professional development grants of up to $750 to help youth-serving professionals pay for the registration cost and hotel or travel costs associated with a professional development opportunity. Submit an application by the tenth of the month to receive a decision by the first of the following month. More HERE Also, if you're applying for a grant, submit your proposal to IYI, and an IYI consultant will offer you free feedback to strengthen your submission. More HERE.

Lockheed Martin: Grants for Education Lockheed Martin provides grants for K-16 Science, Technology, Engineering and Math (STEM) Education. This includes Lockheed Martin's K-12 STEM Education Initiative, Engineers in the Classroom, as well as STEM-focused curricular and extracurricular programs that provide employee engagement opportunities in a community in which Lockheed Martin has employees or business interests. Maximum award: varies. Eligibility: 501(c)(3) organizations that deliver standards-based science, technology, engineering and math (STEM) education to students in K-16. Amount: Varies Deadline: Rolling. More HERE.

Science Everywhere Innovation Challenge The Overdeck Family Foundation and the Simons Foundation just announced the launch of Science Everywhere, an initiative to catalyze math and science learning beyond school walls, in partnership with DonorsChoose.org. The foundations are providing nearly half a million dollars to match donations from the public to support creative, hands-on project ideas submitted by educators to the DonorsChoose.org platform. At the end of the challenge, a panel of judges led by astronaut Leland Melvin will award five $5,000 prizes to the best ideas. More info HERE.

STEMfinity STEM Grants Listings: Indiana http://www.stemfinity.com/stem-grants-indiana

EVERY student EVERY school EVERY day

TechPoint Foundation for Youth Could your organization benefit from receiving a free VEX IQ Robotics Kit, training, and other resources needed to get a robotics program started? [TechPoint Foundation for Youth](#) has $500 Robotics Grants available to any 501c3 that does not already have a VEX IQ Robotics team!

The Robotics Grant includes:

- VEX IQ Robotics Kit
- Project Lead the Way classroom Activities
- Professional Development Training and ongoing support
- Team Registration Cost

We are looking for enthusiastic educators, who are interested in beginning a robotics team, to apply for the grant. No experience needed. We have already awarded over 450 grants and we have more available! This grant application is straight forward, easy to complete and there is no catch! This is an amazing and unique opportunity for Indiana schools and we don't want your school to miss out!

Learn more and apply [here](#) today! ([www.techpointyouth.org/apply-for-robot-grant-nonschools/](#)) Inquiries may be directed to [RobotGrant@TechPointYouth.org](#)

The Toshiba America Foundation Accepting grant applications from K-5 grade school teachers for innovative science or math projects in their own classroom. The foundation awards individual grants of up to $1,000 to K-5 teachers in public or private nonprofit schools in support of hands-on science or math education projects. The funds are for project-related materials only. The foundation strongly encourages projects planned and led by individual teachers or teams of teachers for their own classrooms. http://www.toshiba.com/taf/k5.jsp

Resources for STEM Educators

The Afterschool STEM Hub This collaboration of out-of-school-time program leaders and stakeholders can provide coordinated messaging and communications that impact advocacy and policy and help ensure the important place of informal, afterschool and summer programs in the STEM learning ecosystem. For more information on this initiative (including the list of participating organizations,) visit:

www.afterschoolstemhub.org

Black Girls Code Introducing programming and technology to a new generation of coders who will become builders of technological innovation, the program empowers girls of color (ages 7-17) to become innovators in STEM fields, leaders in their communities, and builders of their own futures through exposure to computer science and technology. Black Girls Code has a goal of training one million African American girls to code by 2040. http://theconnectory.org/program/black-girls-code

The Black Family Technology Awareness Association (BFTAA) Campaigning to empower and equip its community of families with the resources needed to become actively involved with the technology revolution, BFTAA partners with faith-based organizations, corporations with a strong community presence, small businesses, resource centers, such as schools and libraries, and city and state government agencies. By bringing together all these entities to focus on finding solutions, BFTAA hopes to create models of success that will close the digital divide that threatens to perpetuate educational, financial, and social inequality in America. Its BFTAA "Youth Technology Club" features STEM opportunities around robotics and broadcasting for elementary through high school students. More info [HERE](#).

Connect a Million Minds (Time Warner) Connect A Million Minds supports include after-school STEM programs, mentorship programs that inspire the pursuit of STEM education and careers, STEM-related competitions, visitations to technology companies and labs, and apprenticeship programs.

No deadline. For more information, go to: http://www.connectamillionminds.com/request-support

The Connectory This free online collaboration tool gives STEM program providers a chance to find partners based on interests as well as a platform to showcase STEM opportunities to families. Families, in turn, have a free, go-to resource to connect the children in their lives to STEM learning opportunities in their community. http://www.theconnectory.org/

Edutopia – 12 Inspiring STEM Books for Girls Science, technology, engineering, and math are more important than ever, so we've put together a list of books to encourage girls to persevere in these subjects – https://www.edutopia.org/article/12-inspiring-stem-books-

EVERY student EVERY school EVERY day

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Indiana Department of Education STEM School Certification Program For details on the process to earn the IDOE designation of a STEM School, follow THIS LINK Note that, to be certified as an IDOE STEM school, a school must offer an afterschool program in STEM.

The Indiana State Museum The museum offers free admission to groups of 10 or more K-12 students visiting from 21st Century Community Learning Centers during school breaks. ISM can help K-12 students meet Indiana Academic Standards in physical science, earth science, life science and STEM-related standards. Research shows that encounters with original artifacts, performances, and hands-on activities, all available at the Indiana State Museum, reach children who do not respond well to traditional teaching methods. Research further demonstrates that children who visit museums have higher achievement in math, reading and science. Please contact Sarah Rapp-Johnson at SRappjohnson@indianamuseum.org for more information, or visit https://www.surveymonkey.com/r/ISM21stCentury to register for a free field trip.

Indianapolis Zoo Offers **professional development and kits to educators.** Learn More HERE.

Matific Takes a unique approach to teaching K to 6 math using hands-on and interactive mini-games called episodes. These immersive bite-sized apps for tablets and personal computers are based on a modular and progressive spiral learning system. For a free 30-day Matific trial, click here and register: www.matific.com . To schedule a free webinar to learn how Matific can be customized to serve your program, click here to request a webinar demo: http://meetme.so/SeanTiernan

Minecraft Hour of Code - Microsoft Store Indianapolis This is a free, 90-minute workshop that goes behind the scenes to learn how to code, program, and play in the own gaming world. Participants will use fun, interactive coding to learn how creativity and problem solving come together to make something all their own. The workshop is designed for ages 8 and older. Participants should bring a set of headphones or

earbuds. Contact ayanac@microsoft.com to schedule a private event. More info on this and other workshops HERE.

National Girls Collaborative   The *Playing with Data* research project is currently recruiting 7th and 8th grade science teachers for a classroom-based study beginning in late September/early October 2017! The National Science Foundation-funded project is investigating how teachers use data from video gameplay for formative assessment. Participating teachers will agree to use a mini-unit created to develop students' basic skills in argumentation. The supplemental mini-unit includes an iPad-based game—*Mars Generation One*—designed to build argumentation skills through gameplay. The mini-unit also includes comprehensive lesson plans and classroom activities, which will be implemented during teachers' regular units on Energy. The mini-unit includes a capstone project for classroom debate. The length of implementation is approximately 3 weeks. Participants will be expected to spend approximately 10 hours beyond their regular teaching time completing study requirements (e.g., completing surveys and participating in interviews). Teachers will receive a $500.00 stipend at the end of the study.   If you are interested in participating, or for more information, please email Heather Kim, Researcher, at hkim@edc.org, or call her at 212.807.4225. More information about the study can be found at http://playingwithdata.edc.org/ and to learn more about the game, go to

 http://www.glasslabgames.org/games/AA-1

Next Generation Science Standards: A primer and resource guide for afterschool educators   The Next Generation Science Standards (NGSS) offer a powerful new vision for American science education for the 21st century. NGSS has already been adopted by 17 states, as well as many more individual schools and districts. This resource will help you learn what's relevant for afterschool providers, and help you develop a strategy for engaging with the new standards. More info HERE.

The STEM Connection This Indianapolis-based organization offers opportunities where STEM (science, technology, engineering and math) learning happens through hands-on activities and exploration of the natural world. Go to theSTEMconnection.org for information about their events and programs.

STEM Ready America A collection of articles, including one authored by Indiana Education STEM Taskforce members Bob Abrams, Paul Ainslie, and

EVERY student **EVERY** school **EVERY** day

Reginald McGregor, highlights how young people are developing STEM knowledge and skills that will prepare them to be successful in school today and the workforce tomorrow. Developed by STEM Next, with support from the Charles Stewart Mott Foundation, this compendium provides persuasive evidence and real-world examples to help bring quality STEM learning to children and youth across the nation. Check out STEM Ready America.

Teen Science Cafe Network Teen Science Café out-of-school programs are a free, fun way for teens to explore the big advances in science and technology affecting their lives. Teens and STEM experts engage in lively conversations and activities to explore a topic deeply. https://teensciencecafe.org/

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