

STEM-IN'

Indiana STEM News



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Link Observatory Space Science Institute The historic Link Observatory, located on a hilltop 4 ½ miles south of Mooresville, exists to foster scientific discovery, stimulate an interest in space exploration and cultivate the next generation of science, technology and academic leaders. Completed in 1939, the observatory was built for the private use of Dr. Goethe Link, a noted Indianapolis surgeon, and was given to Indiana University School of Astronomy in 1948. From the 1950s through the mid-1980s it was used by Indiana University for important astronomical research.

Link Observatory Space Science Institute provides informal STEM education programs for middle and high school students focused on NASA missions, astronomy and space exploration. All of our programs are educator friendly requiring only about 5 minutes prep time, and easy to implement in almost any classroom. We provide engaging,

inspirational and educational content that excites students in STEM disciplines. We allow students to engage in the forefront of scientific discovery and potentially make real contributions to the worldwide database of scientific knowledge.

While using our programs, students will have the opportunity to talk live with NASA scientists, astronauts and engineers on the latest in scientific space discovery and exploration, to discover new planets orbiting around other stars, to learn of the latest discoveries and advancements in space science directly from NASA experts, to analyze data from NASA's Earth Science satellites to monitor the health of our planet, and even to take control of one of NASA's football field size radio telescopes to perform actual scientific research to further our understanding of the universe.

Space exploration and our place in the universe has been a source of wonder since the earliest humans walked the Earth. STEM education provides the tools to unlock those secrets. If you are interested in learning more about our STEM educational programs, bringing NASA into your classroom and sharing the wonders of the universe to improve STEM education in Indiana, please contact us at www.LinkObservatory.org.

TECHFIT: Merging STEM and Fitness TECHFIT (Teaching Engineering Concepts to Harness Future Innovators and Technologists) seeks to spark STEM interest in middle school (MS) children by demonstrating the impact information and technology have on our world and equipping this next generation of innovators to design and implement technology-based fitness games called "exergames". TECHFIT includes both a one-week professional development (PD) program for teams of MS teachers and a 10-week afterschool program for their students.

By 12/2016, TECHFIT has offered six PD programs to 70 MS teachers comprising 30 teacher teams from 19 schools in four states: Indiana, South Carolina, Ohio, and Washington. Over 800 students have completed the TECHFIT afterschool program since its inception in 2014. On 12/8/16, 7 MS teams from Indiana and Ohio will show off their exergame innovations to the public at Purdue University's Co-Rec. On 12/14/16, 8 MS teams from South





Lafayette Sunnyside Intermediate School's Black Team demonstrates how three teams play their exercise game.

Carolina will do the same at the College of Charleston.

MS teachers and school officials interested in learning more about TECHFIT and participating in future program offerings should email the project leaders at techfit@purdue.edu.

TECHFIT is supported by a grant from NSF and is administered and taught by Purdue's Polytechnic faculty in collaboration with faculty from the College of Charleston.

The SIXTH Annual Indiana Summit on Out-of-School Learning Indiana Convention Center, Downtown Indianapolis April 10-11, 2017, 7:30 a.m. - 5:00 p.m.

Hosted by the Indiana Department of Education and the Indiana Afterschool Network. Grab a great opportunity! Be part of the 2017 Indiana Summit on Out of School Learning, with the newest ideas in afterschool and summer programming.

It will be two days of exciting keynote speakers, networking events, exhibitors, and more than 50 innovative, engaging workshops on afterschool and summer learning. The Summit brings together our state's top talent to share the latest advances in our field. Join more than 750 youth workers, educators and community partners to connect, learn, and access resources that advance learning opportunities for Indiana's K-12 youth.

REGISTRATION NOW OPEN!

Early Bird Rate: \$75

Regular Rate after January 15: \$95

Indiana STEM Education Conference The second-annual Indiana STEM Education Conference will be held at Purdue University on January 12, 2017. The Purdue University College of Education and Center for Advancing the Teaching and Learning of STEM (CATALYST), the Indiana Department of Education, and the Indiana Commission for Higher Education are proud sponsors of

the conference. Indiana has increased momentum in K-12 STEM education over the past few years and this event is designed to capitalize on the knowledge and experiences that have been generated to continue moving Indiana forward. The goal of the conference is to provide a platform for dissemination of best practices in K-12 STEM teaching and learning in Indiana.

Here is link to the online agenda that lists all the workshops and presentations taking place, as well as registration information:

https://www.conf.purdue.edu/landing_pages/stem/index.html

Indiana ESSA Call to Action The Indiana Department of Education is currently preparing the state plan to carry out the new Every Student Succeeds Act (ESSA), the replacement law to No Child Left Behind. ESSA generally places much more control in education spending, priorities and assessments in the state's hand, making the state plan exceedingly important.

The IDOE has a web site with information about their plan and its timetable: <http://www.doe.in.gov/essa>. You can express your thoughts about STEM education via the public comments using the Feedback button at the website.

The importance of quality STEM education in Indiana cannot be overemphasized. STEM must be a priority from the IDOE on down the line to every school. Please make your position known to the IDOE. Specifically, we should ask for:

- Restore STEM funding lost with the end of Math-Science Partnerships (need \$5M) under Title 4A
- Need more teacher professional development for Science/STEM under Title II
- Include Science in the State Accountability Plan

Statewide STEM Coalition Meeting Presentations On-Line

I-STEM and IAN co-chaired an interesting and lively Statewide STEM Coalition Meeting on November 18 hosted by Lilly. Presentations from the meeting can be found at:

<https://www.dropbox.com/sh/ly598qqdjs54w14/AAC-Rg0s7KjR0AoqGmQ-174Ra?dl=0>.

About STEM-IN' This newsletter is published 12 times per year by the I-STEM Resource Network and the Indiana Afterschool Network. For inquiries and news contributions please email: istem@istemnetwork.org.

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