

Newsletter**Special Interest Articles**

- Duke Energy Summer Camp

Individual Highlights

- Openstax
- OER Commons
- PBS LearningMedia
- Geometry Pad
- Kahoot!
- STEM-Works
- Science in the Rockies

2019 Duke Energy Sustainable Alternative Energies Summer Boot Camp

An Intensive “Boot Camp” Teacher Training Combining Academic Professional Development with Vocational Site Visits to Alternative Energy Providers
Thanks to funding provided by: Duke Energy Foundation

Where: Rose-Hulman Institute of Technology Campus
When: July 14 - 19, 2019
Cost: Free (except travel expenses to / from RHIT)

From July 14 - 19, Rose-Hulman PRISM will be facilitating the Duke Energy Sustainable Alternative Energies Summer Boot Camp. The boot camp takes place on the Rose-Hulman Institute of Technology campus. Secondary and Middle School (6-12) STEM teachers teaching units in their curriculum on sustainable energies are invited to submit an application. The purpose of this institute is to provide the teachers a true “boot camp experience” in sustainable alternative energies combining academic professional development with vocational site visits to some alternative energy providers in Indiana.

During the institute, teachers are to be developing standards-based, practical and comprehensive lessons for units on sustainable alternative energies. Time will be given each day to help guide the development of lesson plans. Teachers will also be given time to share their ideas and collaborate each day.

Upon completion, and after fully participating in the institute, each teacher will receive a kit of supplies containing materials for all the lab activities done during the institute. Teachers can also receive, upon completion of the institute, 45 Professional Growth Points (PGP’s) to apply on their Indiana Teacher’s License renewal.

All participants will be housed in a residence hall on the Rose-Hulman Institute of Technology campus during the institute. Meals will be provided through the Food & Dining Services (Café Bon Appetit) in the student union.

continued on Page 2...

2019 Duke Energy Sustainable Alternative Energies Summer Boot Camp

Eligibility Requirements:

- Teachers must be active Indiana Middle or Secondary School STEM teachers.
- All teachers in this particular session must reside in a Duke Energy service area (be a Duke Energy customer).
- Priority will be given to teachers that have 0-10 years of teaching experience.

Main Topics

U.S. Power Grid

Energy Conservation

Solar Energy

Wind Energy

Coal-fired Power Plants

Natural Gas Combined-Cycle Power Plants

Site visits could include:

Duke Energy Cayuga Power Plant, Cayuga, IN

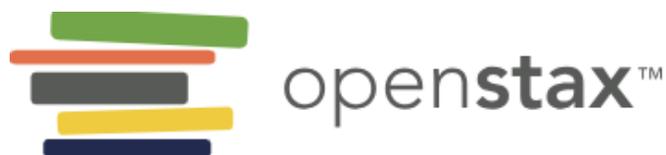
MISO Headquarters, Carmel, IN

IND Solar Farm, Indianapolis International Airport

Benton County Wind Energy Farms

NIPSCO Power Plant, West Terre Haute, IN

Apply online at: www.rose-prism.org. You must create an account on our website. After setting up an account, you will need to click on Event Registration on the front page (left-hand side under Main Menu). Then, click on the drop-down menu and select: **Duke Energy Sustainable Energy Experience 2019**.



OpenStax is a nonprofit educational initiative based at Rice University, and it's their mission to give every student the tools they need to be successful in the classroom. Through partnerships with philanthropic foundations and alliances with other educational resource companies, OpenStax is breaking down the some common barriers to learning. They believe that a well-educated society profits us all and helps society.

OpenStax publishes high-quality, peer reviewed, open-licensed textbooks that are free and available online to students and teachers. The online textbooks can be used by colleges, universities and K-12 schools everywhere. The resources are up-to-date and most contain much more than just text. Many have embedded videos, simulations and other digital media that truly enhance learning. Check out the current library of online textbooks at: Peer-reviewed. Openly licensed. 100% free.

For more information on all OER resources: [OpenStax](#)

OER Commons & Open Education The Future of Eduation, Co-Created With You



Open educational resources support equity and flexibility for teachers and students at all levels particularly high school and higher education institutions. The OER movement across this country, and throughout the world, has a focus on access to free or low cost high-quality education resources. It is also is developing an atmosphere of collaboration amongst educators at all levels. Open Educational Resources (OER) offer opportunities for change in the teaching and learning content. This is being done through engaging educators in new processes and effective technologies for engaging with learning. The move to open education practice (OEP) is more than a shift in content, it is an immersive experience in collaborative teaching and learning. OEP leverages open education resources (OER) to expand

the role of educators, allowing teachers to become curators, curriculum designers, and content creators.

OER resources are teaching and learning materials that students, teachers and all learners can freely use and reuse at no cost. OER resources are authored, or developed by individuals, or institutions that choose to retain few owner rights. On OER Commons, students, teacher and all learners can search, evaluate and use resources that include full textbooks, full college courses, interactive lessons and simulations along with lesson plans and worksheets.

For more information: <https://www.oercommons.org>

Bring the World to Your Classroom



WFYI and PBS have curated free, standards-aligned videos, interactives, lesson plans and more just for Indiana teachers. Resources are available for Science, Social Studies, Math, English and Language Arts, Health & PE, the Arts and Foreign Languages. Excellent resources are available for all grade levels Pre-K through 12th grade. Resources can be browsed

for by subject or grade level. PBS LearningMedia has done an excellent job of aligning resources to content standards at each grade level. Teachers can create full lessons, exercises, assignments and assessments (quizzes). Students can enter the website through a student view platform to access teacher-made assignments. PBS LearningMedia can be synced with Google Classroom.

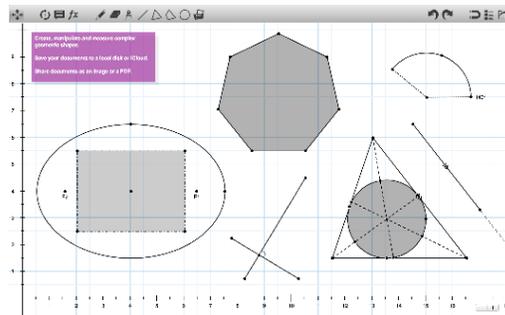
For more information: <https://indiana.pbslearningmedia.org/>

Geometry Pad



The study of geometry could be more enhanced by using the Geometry Pad app. A student can learn geometry through practice with the dynamic Geometry Pad app. Geometry Pad allows a student to create fundamental geometric shapes, explore and change their properties and calculate metrics. The shapes are displayed on a scrollable and a zoomable workbook with a rectangular coordinate system. This application is a valuable tool for everyone who wants to develop and improve geometry skills. For teachers, it allows them to add an interactive component to teaching geometry. Many geometry tools are built into the application:

- Move and scale.
- Point
- Create a line.
- Midpoint for lines.
- Parallel, perpendicular and tangent lines.
- Angles, Triangles, Quadrilaterals, Circles
- Measurement tools.



Geometry Pad is available for Android and iOS (Apple).

For more information: <https://www.stemonmobile.com/geometry-pad/>

Kahoot!



Make learning fun in the classroom with Kahoot! Kahoot makes it easy to create, share and play learning games that engage students. Create trivia quizzes to serve as formative assessments. Kahoot is a game based classroom response system played by the whole class in real time. Multiple-choice questions are projected on the screen. Students answer the questions with their smartphone, tablet or computer. Feedback and praise can be given back immediately. The format and number of questions are entirely up to the teacher. A teacher can add videos, images and diagrams to questions to enhance engagement.

For more information: <https://kahoot.com/>



STEM-Works



The STEM-Works team has developed a website that supports teacher in their local communities committed to increasing engagement in science, technology, engineering and math activities. A big emphasis is one building and creating a virtual community of educators. The STEM-Works team believes there are many grass-roots efforts by individuals and local organizations working to increase experience “stem” experiences for students. The Department of Defense and the Southern Methodist University sponsor the STEM-Works program. The programs developed by this team are designed to help STEM professionals and teachers find quality materials on exciting subjects that will excite students about learning. Some of the subjects include robotics, wind energy and forensics science. The

website has resources for teachers, mentors, parents, other STEM professionals and other volunteers.

STEM-Works has 3 main goals:

1. Develop a virtual community. That community consists of teachers.
2. Create a virtual environment where teachers, and other volunteers, will find the tools needed to inspire, teach and have fun with young people.
3. Defense Support STEM professionals working in the Department of Defense by focusing on their geographic regions like Washington, DC area, Dallas/Fort Worth, Seattle, Albuquerque and Indianapolis.

For more information and access to some excellent online STEM resources: <http://stem-works.com/>

TEACHING TEACHERS HOW TO CREATE AMAZING STEM EXPERIENCES

Steve Spangler's Summer STEM Conference
July 9-11, 2019



Join Steve Spangler for an amazingly fun, three-day professional development experience guaranteed to make STEM more exciting and meaningful for students. Science in the Rockies is perfect for educators, administrators and curriculum specialists (Pre-K to 8) who want to explore best practices, instructional strategies and high-level engagement pedagogy for inspiring students through STEM. Attendees will participate in more than 75 of Steve's favorite demonstrations and experiments.

Steve Spangler will take the fear out of teaching science and help teachers become a more effective STEM teacher. Teachers will leave this experience with the knowledge, presentation skills, confidence, and tools to make science the favorite part the school day for students.

Teachers will bring home with them a kit of over \$400 of materials. The kit will include gizmos, gadgets, hands-on learning materials and detailed instructions for all activities. During the 3-day workshop, teachers will learn how to use exploration and inquiry to create unforgettable learning experiences for students.

For more information and to apply: [Science in the Rockies](#)

What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 5,000.
- Store your classroom materials online so that they are available to you from any computer.
- Select from free learning resources that emphasize visualization, rich context, staged-problem solving, and electronically enabled collaboration / communication.
- Save a list of your favorite resources for quick retrieval.
- Reach your students more effectively by using web media for the digital age.
- Augment your own dynamic presence in the classroom with teaching tools that mirror the skills needed for success in higher education and the 21st Century workplace.
- Create and share lesson plans that teach your subjects utilizing your favorite resources.
- Earn PGP points by completing PRISM led online Moodle course – either Beginning Moodle or Intermediate Moodle courses are available to you at no cost several times throughout the year.

Through our strong support from the [Lilly Endowment](#) and others, we are constantly growing and improving. Check our site regularly to see what new resources you can use in your classroom.

www.rose-prism.org