

Newsletter**Special Interest Articles**

- Summer of 2019

Individual Highlights

- Resources for Teachers
- Professional Development Opportunity
- Suggestion Box

PRISM's Summer of 2019

During the Summer of 2019, the PRISM staff was busy with STEM programs for Indiana K-12 teachers. From June 3 – June 14, PRISM coordinated and facilitated workshops with Vigo County School Corporation's middle school science and math teachers along with a group of 4th grade teachers. June 23 – June 28, PRISM hosted a residential boot camp on sustainable alternative energies for STEM teachers from all across Indiana. July 14 – July 19, PRISM hosted a second residential boot camp on sustainable alternative energies for STEM teachers predominantly from west-central Indiana.



The workshops for the Vigo County School Corporation's teachers were funded by a Title IV grant awarded to the school district. Three separate workshops ran concurrently. Each

workshop was for a duration of 40 hours. One workshop was for middle school math teachers. Dr. Igor Minevich a Visiting Professor of Mathematics at Rose-Hulman facilitated the daily sessions.

A second workshop was for middle school science teachers. Dr. Andrew Mech, Professor of Mechanical Engineering (retired) at Rose-Hulman facilitated the daily sessions. The third workshop was for 4th grade teachers. Dr. Renee Rogge, Professor of Biomedical Engineering, facilitated eight of the daily session.



PRISM's Summer of 2019



Dr. Tina Hudson, Professor of Electrical and Computer Engineering facilitated two of the daily sessions. The workshops for the 4th grade teachers and the middle school science teachers had a focus on science process standards and inquiry-based / hands-on science. The middle school math workshop had a focus on specific math standards that were most challenging for the teachers. They were provided some lessons and activities to make the math more real-life.

Frank and Becky Levinson, Rose-Hulman alumni, funded the first residential boot camp. The Duke Energy Foundation funded the second residential boot camp. Teachers lived in residence on the RHIT campus during the program, attended daily lectures and lab sessions of the morning and in the afternoon went on field trips in the afternoon. Field trips were taken to: MISO in Carmel, IN; Telamon, Inc., in Carmel, IN; Hoosier Energy's Merom Generating Station (power plant) near Sullivan, IN; NIPSCO's Sugar Creek Generating Station in rural West Terre Haute, Duke Energy's Cayuga Generating Station (power plant). All teachers received professional growth point certificates (PGP's) upon completion of the program. Teachers also received a kit of supplies for each of the labs that were done on campus. Dr. Andrew Mech facilitated each morning lecture (50 minutes each). Dr. Robert Bunch, Professor of Physics and Optical Engineering, gave a talk on lighting and types of light bulbs. Dr. Jennifer Mueller, Professor of Civil and Environmental Engineering, gave the keynote speech on the opening night of each boot camp. She spoke on sustainable practices and teachings at Rose-Hulman Institute of Technology. Each workshop was a 45 hour professional development experience for the teachers.



Resources for Teachers



Illustrative Mathematics content developers craft and deliver high-quality, problem based core math curricula. These resources are for K-12 teachers and students. ***Illustrative Mathematics (IM)*** was founded in 2011 at the University of Arizona. Certified 6-12 Math exercises and lessons are available as open educational resources (OER's) and are free to access by anyone online. Their mission is to create a world where learners know, use and enjoy mathematics through curriculum development, professional learning and administrative guidance. IM has been supported by the Bill & Melinda Gates Foundation, the Carnegie Corporation of New

York, Chan Zuckerberg Institute, Charles and Lynn Schusterman Family Foundation, the Willim and Flora Hewlett Foundation and the W.K. Kellogg Foundation.

For more information and to view IM resources go to: <https://www.illustrativemathematics.org/>



Nature Works Everywhere is a website to help students learn the science behind how nature works for us and how we can help keep it running strong.. Nature is a fantastic factory that makes all the building blocks for peoples' lives. This includes food, water, material items and the air people breath. Nature Works Everywhere provides teachers, students and parents (families) everything they need to start exploring the world and nature. Effectively online, users explore the world alongside the Nature Conservancy scientists. Lesson plans are aligned with most state standards and can be customized for use in any classroom.

For more information go to: <https://www.natureworkseverywhere.org/>

Resources for Teachers



TeachEngineering is an excellent resource for STEM activities and lessons for all K-12 teachers. TeachEngineering has an outstanding collection of classroom tested, standards-based curricula. Resources can be searched by curricular areas and units and by individual state standards (most U.S. states and NGSS). University engineering faculty, graduate students and K-12 teachers across the nation developed and classroom tested the contents of the TeachEngineering collection. A main theme revolves around engineering in everyday life as the context for student learning. Specific contributions by individual authors are recognized at the end of every lesson and activity. The collection aligns with state and/or national science, mathematics and technology educational standards, and uses engineering as the vehicle to integrate science and mathematics concepts for K-12 students.

For more information, go to: <https://www.teachengineering.org>

The periodic table of chemical elements, created by Dmitry Mendeleev in 1869, is one of the most important achievements in modern science. To celebrate this achievement, the Bureau of Labor Statistics (BLS) has created a periodic table of their own! Instead of elements, they have used Science, Technology, Engineering and Math (STEM) occupations. Workers in STEM occupations use science and mathematics to understand how the world works and to solve problems. When you access their website to see their Periodic Table of STEM, you can click on an "element" to discover information about the given careers. You can also hover over an "element" to visualize career groups that highlight that discipline. Great resource to use to share information about STEM careers to students at all levels.



The periodic table of chemical elements, created by Dmitry Mendeleev in 1869, is one of the most important achievements in modern science. To celebrate this achievement, the Bureau of Labor Statistics (BLS) has created a periodic table of their own! Instead of elements, they have used Science, Technology, Engineering and Math (STEM) occupations. Workers in STEM occupations use science and mathematics to understand how the world works and to solve problems. When you access their website to see their Periodic Table of STEM, you can click on an "element" to discover information about the given careers. You can also hover over an "element" to visualize career groups that highlight that discipline. Great resource to use to share information about STEM careers to students at all levels.

For more information go to: <https://www.bls.gov/k12/content/students/careers/stem-table.htm>

Professional Development Opportunity

2019 ICTM FALL Conference

Math Teachers as TRANSFORMERS: Transforming Learning, Transforming Lives



The Indiana Council of Teachers of Mathematics (ICTM) Conference will be September 29 – 30, 2019 at the Marriott East in Indianapolis Indiana. Plenary speakers will be Christa Jackson, Associate Professor of Mathematics Education at Iowa State University; Alfie Kohn, author of *The Schools Our Children Deserve*; and, Michael Steele, President of the Association of Mathematics Teacher Educators.

A conference flyer is available here: [2019 Fall Conference](#)

For more information go to: <http://ictm.onefireplace.org/2019-Fall-Conference>

PRISM Suggestion Box

The PRISM Team welcomes any feedback you would like to share with the team. To access:

- Log-in to your PRISM Account
- Look for the 'Suggestions Box' link on the right side of the webpage in the 'About Us' block
- Follow that link and answer the two questions about the PRISM website.



PRISM Feedback

PRISM welcomes teacher feedback! Please enter any feedback you have about our services, or feel free to suggestion any new features.

Answer the questions...

What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 5,000.
- Save a list of your favorite resources for quick retrieval.
- Create and share lesson plans that teach your subjects utilizing your favorite resources.
- Develop online classrooms with interactive assignments, lessons, quizzes and more!
- Store your classroom materials online so that they are available to you from any computer.
- Reach your students more effectively by using web media for the digital age.
- 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.
- Select from free learning resources that emphasize visualization, rich context, staged-problem solving, and electronically enabled collaboration / communication.
- 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.

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