

Newsletter

Special Interest Articles

- PRISM in Action

Individual Highlights

- Professional Development Opportunities

Rose-Hulman PRISM in Action Providing Professional Development Experiences for Vigo County Schools' Math & Science Teachers and STEM Experiences for High School Students

by Bob Jackson | PRISM Educational Liaison

Summer 2017 is shaping up to be a very busy time for Rose-Hulman PRISM! During the month of June the PRISM staff will be facilitating professional development programs for Vigo County Schools' Middle School science and math teachers, high school AP and College Challenge Math and Science teachers and will for the first time be assisting high school teachers in providing some STEM experiences for 36 high school students. Each of these programs have been funded through Math-Science Partnership Grants (<http://www.doe.in.gov/ccr/math-and-science-partnership-program>).

The program for middle school science and math teachers will be a 3-week, 80-hour intensive institute. Each week of the institute has a focus on different concept areas in math and science. The teachers will attend sessions 4 days each week at Woodrow Wilson Middle School from 8:00 AM – 1:00 PM and on Fridays, each week, the teachers will attend sessions hosted at Rose-Hulman Institute of Technology from 8:00 AM – 2:30 PM.



Week 1, June 5th – June 9th will be “Real World Math Applications”. The main focus will be on VEX Robotics. Dr. Christopher Miller, Rose-Hulman Assistant Professor of Electrical and

Computer Engineering introduced the teachers to VEX Robotics in the June 2016 institute. Bob Jackson, Rose-Hulman PRISM's educational liaison assisted Vigo County Middle Schools math teachers integrate introductory VEX Robotics lessons into their classes during the 2016-2017 school year. The program was highly successful. Students became truly engaged in the VEX Robotics lessons. During the Institute in June 2017 teachers will gain more training on the VEX Robots and work on articulating lessons for grades 6th, 7th and 8th grades.



continued on Page 2...

Rose-Hulman PRISM in Action

Providing Professional Development Experiences for Vigo County Schools' Math & Science Teachers and STEM Experiences for High School Students

continued...

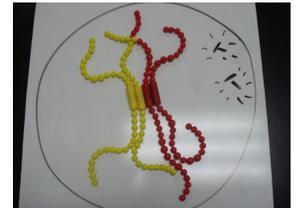


Week 2, June 12th – June 16th will be “Physical Science / Engineering Applications Using LEGO Education’s Simple & Powered Machines”. Dr. Maarij Syed, Rose-Hulman Associate Professor of Physics & Optical Engineering introduced the teachers to the LEGO Education Simple and Powered Machines kits in the June 2016 institute. Bob Jackson assisted the participating middle school science teachers with integrating some of the LEGO Education lessons into their classes during the 2016-2017 school

year. This program was also highly successful. 6th, 7th & 8th grade middle school science students became highly engaged in the LEGO Education lessons. During the Institute in June 2017 teachers will be given the opportunity to gain experience in working with the rest of the lessons provided in the LEGO Education curriculum guide. There are over 20 lessons and activities along with several machines / mechanisms and engineering applications that can be utilized for middle school science labs that are in alignment with Indiana State Science Standards.



Week 3, June 19th – 23rd will be “Life Science: Genetics Applications, Cell Division, Cell Differentiation & Specialization and Invasive Species of Indiana”. Dr. Renee Rogge, Rose-Hulman Professor of Biology & Biomedical Engineering will be facilitation sessions with teachers on genetics, cell division, cell differentiation & specialization. On Thursday, June 22nd, teachers will attend sessions in which representatives of the Indiana DNR, the U.S. NRCS regional office, local foresters will provide information and experiences with Indiana invasive species that have become major environmental and economic concerns.



continued on Page 3...

Rose-Hulman PRISM in Action

Providing Professional Development Experiences for Vigo County Schools' Math & Science Teachers and STEM Experiences for High School Students

continued...



The program for high school AP and College Challenge Math and Science teachers will be a 7 day, 40-hour professional development program. This program is coordinated with a program in which the high school teachers will have taken math and science graduate level courses that are needed to be credentialed to teach courses like AP Biology, College Challenge Anatomy & Physiology, AP Chemistry and Calculus (along with other areas of math and science). The Rose-Hulman PRISM program for these teachers is a “follow-on” to the graduate courses that these teachers have taken and will immerse the teachers in practical, lab-based, “hands-on” experiences to give teachers experiences that they can take to their classrooms and engage students in these types of lessons. There will be three groups of teachers attending these sessions: 1) Mathematics (Calculus) 2) Biology / Life Sciences 3) Chemistry (AP Chemistry prep).



Rose-Hulman PRISM’s program for the high school students is coordinated with the Vigo County Schools’ summer Advanced STEM Study and College and Career Awareness Dual College Credit Opportunity. Vigo County high school students enroll in the summer program to learn about STEM careers and about college life experiences. It is a three week, summer school program. The hope is that the learning opportunity will help to prepare students for a more successful transition to post-secondary education. Rose-Hulman PRISM will facilitate activities for these students on Fridays of each of the weeks of the summer program. Students will tour the Branam Innovation Center on the Rose-Hulman campus, go on field trips to Rose-Hulman Ventures, POET Biorefining in Cloverdale, IN, and to NIPSCO Combined Cycle Power Station outside West Terre Haute, IN. Students will have

“lunch with an engineer” on each of the Fridays. The engineer will be both a graduate of Rose-Hulman Institute of Technology and from a Vigo County High School. The engineer will be discussing his/her career, college life, college and career preparation with the students. Rose-Hulman Admissions, Student Affairs and College Life representatives and current Rose-Hulman students, will lead afternoon sessions.

Professional Development for Teachers

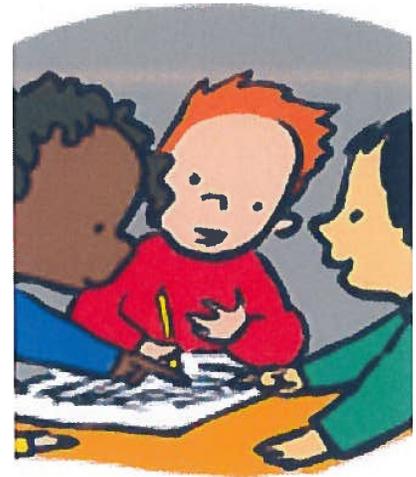
Western Indiana Education Service Center - Workshops Advancing Differentiation: K-12 Equity and Engagement in All Classrooms

Presenter: Sandra Adams

Intended Audience: All teachers in grades K-12, administrators, & K-12 instructional coaches.

At this session, participants will engage in the following:

- Design instruction that is both of assessments and for assessments; participants are encouraged to bring current assessments and instructional strategies.
- Work to add genuine differentiation to your current lessons. Experience 7 ways to achieve greater Productive Talk from your students, allowing for feedback and a truer sense of differentiated learning.
- Examine differentiation through each of the 4 major categories of content, process, products, and learning environment.
- Examine simple tools of differentiation that really do close the achievement gap, excellence gap, and digital divide—from tickets, cups, and charts, to websites and digital apps like OneNote.
- This workshop is 80% practical / 20% theory so that all K-12 teachers leave with materials needed to "ramp up" their current differentiation efforts. This day is intended to leverage your current instruction and raise the level of differentiation for greater student gains



DATE: April 4, 2017

Registration: 8:30 AM

WHEN: 9:00 a.m. – 3:30 p.m. Lunch will be provided

WHERE: West Central IN ESC, Greencastle (Community Room)

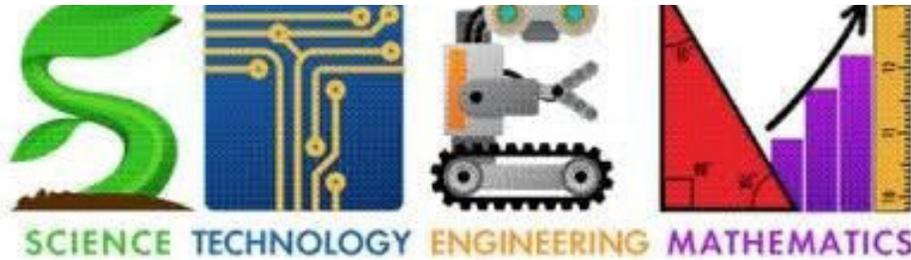
Cost: \$95.00 ESC Member / \$190 Non-ESC Member

Register: www.wciesc.k12.in.us/workshops

For addition information: WCIESC 765-653-2727 or inowling@wciesc.k12.in.us

Professional Development for Teachers

Are you interested in learning more about STEM Education and Makerspaces?



STEM is an acronym for Science, Technology, Engineering and Math education. We focus on these areas together not only because the e-Skills and knowledge in each discipline are essential for student success, but also because these fields are deeply intertwined in the real world and in how students learn most effectively. In this hands-on and engaging workshop you will learn:

- How to increase student engagement with high-tech to low-tech STEM curriculum
- What STEM education looks like in the K-12 classroom
- Hands-on experience with emerging technology tools

Sphero

Makey Makey

Little Bits

Mini-Drones

And more!

- Successful Makerspace tips and tools for maximum engagement and usage

DATE: April 10, 2017

WHEN: 9:00 a.m. – 3:00 p.m. Lunch will be provided

WHERE: West Central IN ESC, Greencastle

FEES: \$50 WCIESC MEMBERS, \$150 NON-MEMBERS
NCLB CONSORTIUM MEMBERS – 4 FREE REGISTRATIONS

REGISTER ONLINE: www.wciesc.k12.in.us/workshops

This workshop will be led by outstanding educators who are leaders in the STEM field:

Curt Schleibaum, Project Lead the Way Teacher, Seymour Community High School. Google for Education Innovator, Google Certified Trainer, and former K-12 Curriculum Consultant for Indiana Migrant Education Program on STEM education initiative.

Chris Young, Strategic Learning Coordinator, Southern Hancock, Google Certified Trainer and former K-12 Curriculum Consultant for Indiana Migrant Education Program STEM education initiative.

Summer of eLearning

The 2017 Summer of eLearning marks the sixth year of regional conferences sponsored by the Indiana Department of Education, Office of eLearning. This conference series continues our strong tradition of supporting high-quality professional learning in Indiana. Events this summer will span 21 days in June and July. 22 locations will host conferences, most in collaboration with neighboring corporations. In all, a record 51 school districts will combine their efforts to produce the Summer of eLearning!



[Conference Map](#)

Identify opportunities near you with marker detail.

[Conference List](#)

Browse the list of featured keynotes and link to websites.

[Conference Calendar](#)

See host districts by date and save them to a Google calendar.

[Speakers Bureau](#)

Join our list of featured presenters to connect with conference planners.

[2017 Session Presenter Form](#)

Fill in your info if you have a session you are willing to present a session.

For questions about this project, please email [Jason Bailey](#).

What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 4,000.
- 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