prism

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Newsletter

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PRISM Team: "Welcome Back!"

PRISM would like to welcome all our users back for the 2016-2017 school year. For those of you with existing courses on PRISM, here are some helpful tips to get started for the new year:

- **You can re-use your existing courses**. The first step to cleaning them is to perform a Moodle Reset. Look for the 'Reset' link in your course administration block. On that page, you will see several options that allow you to clear the grade book, groups, chat history, quiz data, assignment data, and more. Be sure to click the 'Expand all' link to see all of the options. ***Note: Do not Unenroll your users using the Reset feature. The student administration block in your course will be used to perform this function***.

- **Clear your student roster using the student administration block.** You can delete all students by clicking the 'Advanced' button in the student administration block. Now click the 'Delete' button. You will see a list of your students. You can either check the ones you want removed or remove all of them by clicking 'Select All'. Don't worry if you accidentally delete a student. You can recover the deleted student by clicking the 'Recover' button in the student administration block. ***Notes: Be sure to perform the 'Reset' options in your course before deleting students. Also, if you have a 'Master Student Roster' course for your school, please contact us before performing any enrollment changes.***

- **Update the course start date for your course(s)**. Look for the 'Edit settings' link in your course administration block. On that page, find the setting for 'Course start date' and update it for the new school year. Updating this date will properly date your course's weekly sections.

- **Import your new student rosters**. You can import your student rosters using the CSV Import feature in the student administration block. Please see our tutorial for help with using this feature. ***Note: Email addresses for student accounts on PRISM are OPTIONAL. Please do not add fake email addresses for student accounts***.

- **Contact the PRISM Team to remove old courses**. Courses on PRISM are removed after a year of inactivity. If you have several courses that you no longer need, contact us and we will remove them.

- **Update your web browsers**. For the best experience, the PRISM Team recommends Chrome, Firefox 48, or Microsoft Edge. On the Mac, we recommend the latest version of Safari or Chrome.

LEGO Education: Simple and Motorized Machines
Effective Teaching Solutions for Middle School through College

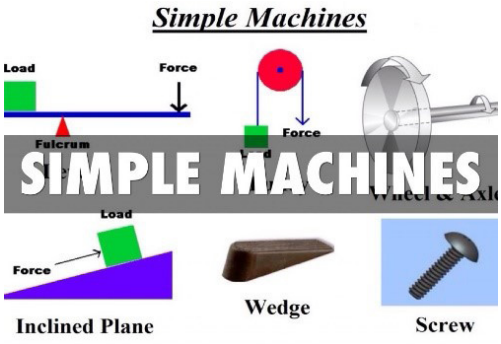
by: Bob Jackson, PRISM Educational Liaison

Teach science, technology, engineering and mathematical skills in a fun and engaging way.

Students from middle school through college can be engaged in active learning by using LEGO Education's Simple and Motorized Machines base kits. Engineering design, technology, applied math and real life engineering skills can effectively be taught and truly experienced by the students using these kits in the classroom.

Basic Skills

Teachers from middle and high schools to college professors instructing students in the concept areas of physical science, physics, mechanical engineering, engineering design and applied mathematics could find practical use of these kits. Students can more effectively visualize, experience and truly get an understanding of how basic mechanisms work, why they work the way they do and most likely get a better understanding of the applied math.



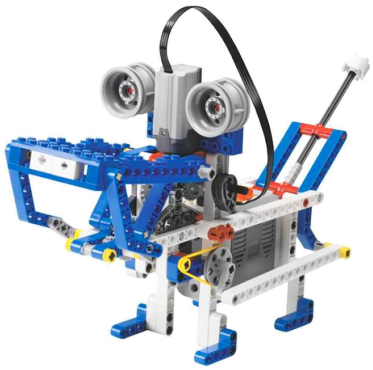
Teachers can start students working with these kits by building models of the six basic types of simple machines: levers, pulleys, wedges, inclined planes, screws and wheel and axles. Teachers can then guide students through much more complex activities where they can be engaged in working with complex machines that have gears, cams, pulleys and even a working motor. In this, teachers can begin to discuss and teach higher level concepts such as: gear ratios, mechanical advantages and efficiencies.

There are twenty different build activities beyond simple machines provided in the curriculum guide in the Simple and Motorized Machines LEGO kit. The activities range of fairly simple machines (i.e.: Sweeper and Fishing Rod) to more complex and motorized machines (i.e.: Dog bot, Tower Crane and Dragster). There is a lesson guide provided with each activity and correlation to content areas that can be linked with the activity including: physics and physical science concepts, math applications, technology and engineering skills.

LEGO Education: Simple and Motorized Machines
Effective Teaching Solutions for Middle School through College
continued...

Traditional education transitioned to more engaged, practical skills education.

Students from middle schools through college have been immersed in courses in which they have extensively studied basic physics concepts, math applications and engineering concepts without ever truly building working models. Students from basic, vocational type courses to college challenge and AP level courses could very well benefit from instructional programs that incorporate the use of the LEGO Education Simple and Motorized Machines kits. The more basic level students in the physical science and lower level physics courses can become more engaged and interested in the subject area content by being able to build and design simple and more complex machines. By experiencing and visualizing the machines, these students can more effectively comprehend and develop higher level, critical thinking skills. The higher ability, higher level students including college challenge and AP students can truly be engaged in critical thinking and be immersed into better application of the concepts they learn from text and other sources in the classroom.



Many college students in courses ranging from physics to engineering design and mechanical engineering could very well gain a much better understanding of complex mechanisms in machines including gears (gear ratios), pulleys and motors. The LEGO Education kits have some very, very good working mechanisms.

Students' 21st Century thinking skills can be enhanced by LEGO Education Simple and Motorized Machines

Twenty-first century thinking skills can more effectively be developed in the minds of students when teachers incorporate the use of LEGO Education's Simple and Motorized Machines kits in their courses. Students become more engaged. Students can begin to understand and apply the concepts learned in classroom lectures, from their texts, digital resources and other sources. Students can learn to hypothesize, experiment, design and more importantly begin to understand how simple and motorized machines work. From this knowledge and experience, students at all levels of education can mature their thinking skills and grow academically.

Find LEGO Education's Simple and Motorized Machines kits at:

https://education.lego.com/en-us/products/simple-powered-machines-base-set/9686

New 2016 Moodle Training Courses

We are offering three FREE online training courses beginning in July. We offer Professional Growth Plan (PGP) points for each course.

Basic Moodle for Teachers (10 PGP Points)
August 23 - September 20

A basic introduction to Moodle 3.1. You will learn how to build a classroom course and populate it with files, assignments and quizzes.

Intermediate Moodle for Teachers (10 PGP Points)
August 24 - September 21

A continuation from the Basic Moodle for Teachers course. Choose this course if you already have Moodle experience and would like to learn how to use some of the more advanced features like wikis, databases, lessons, and RSS feeds.

Advanced Moodle for Teachers (10 PGP Points)
August 25 - September 22

A continuation from the Intermediate Moodle for Teachers course. This course will take the Intermediate level course a step further as participants learn advanced gradebook features, groups and groupings, conditional activities, and the workshop activity module.

All of the courses are completed online at your-own-pace during your own free time.

If you would like to register for a course, please visit the PRISM website, login, and click the 'Event Registration' link. Use the drop-down menu to select the appropriate course and click the 'Registration Form' button. You will see a complete description of the course. To sign up, scroll down and enter your information. You should receive a confirmation email. If you do not receive a confirmation email, please contact us.

2016 Sustainable Energy Experience

A "Boot Camp" Experience in Sustainable Alternative Energies

Rose-Hulman Institute of Technology Campus

From July 10th – 15th, twelve Indiana middle, high and elementary school science teachers participated in the sustainable alternative energies "boot camp" on the Rose-Hulman campus. Teachers lived in residence in the Lakeside Residence Hall. The participating teachers were:

Adam Bedwell, Northview High School, Brazil, IN
Sueanne Esposito, Tipton High School, Tipton, IN
Bryanne Kalous, South Vermillion High School, Clinton, IN
Tsianina McCain, Crispus Attucks Medical Magnet HS, Indianapolis, IN
Jill Richardson, Martinsville West Middle School, Martinsville, IN
Cole Schroer, Northview High School, Brazil, IN
Michelle Smith, Brown Intermediate Center, South Bend, IN
Peaches Stevens, Eminence High School, Eminence, IN
Justin Treptow, Ben Franklin Middle School, Valpraiso, IN
Tiauna Washington, Hibberd Intermediate School, Richmond, IN
Jenny Yergin, Rushville Consolidated High School, Rushville, IN
Jonathan Yergin, Anderson Preparatory Academy, Anderson, IN

The boot camp was funded by STEM Teach Indiana and Duke Energy. STEM Teach funds were established by the Indiana General Assembly to provide funds for STEM teacher training programs within the Independent Colleges of Indiana (ICI). STEM Teach funds are administered by the Center for Excellence in Leadership Learning (CELL) at the University of Indianapolis.

Teachers in the boot camp started each day with Moodle training. They were trained to build a basic Moodle course to store the digital resources that they would be obtaining during the workshop. The intent was for them to be able to use the Moodle LMS with their students. This was followed by a 50-minute lecture on an alternative energy. Lectures were facilitated by Dr. Andrew Mech, Professor of Mechanical Engineering at Rose-Hulman Institute of Technology. After the classroom lecture period each day, the teachers participated in laboratory experiences in Rose-Hulman facilities. The labs included: Home Energy Audit, Kilowatt Meters and Light Bulbs, Dye-Sensitized Solar Cells and Wind Energy (PVC Windmills / Blade Design Activity). In the afternoon each day, the teachers were taken on field trips to various energy production facilities including: Duke Energy Cayuga Power Plant, IND Solar Farm at the Indianapolis International Airport, POET Biorefining in Cloverdale, NIPSCO Surgar Creek Generating Station outside West Terre Haute, residential solar array installations at homes in the Terre Haute area and to the Duke Energy IGCC Coal Gasification Power Plant in Edwardsport. The field experiences were an extremely valuable part of the overall experience in the boot camp.

Teachers will be taking part in a follow on experience on Saturday, Aug. 27th. During this time, teachers are to present how they plan to use the content learned in the boot camp in their classrooms.

Quotes from participating teachers:

I absolutely LOVED this professional development opportunity. I have never been in a situation where I have been able to visit so many aspects of industry, participate in the labs, and ask questions. This was truly an invaluable experience and I really hope I can participate again in the future.

BEST program so far in my career!! I would love to get involved in a program like this.

When I first signed up I was worried. I am so used to being let down by PD, but this one was above and beyond my expectations. Everybody on the PRISM team was very helpful, friendly, and informative. The team seems to mesh quite well even though they have very different backgrounds. Make sure to keep as many field experiences as possible in the PD. We already spend a lot of time in classroom environments, just like the kids, get me out and let me see how these things really work. That is the best way to learn in my opinion.

Upcoming Conferences

Indiana Council of Teachers of Mathematics 2016 Fall Conference

"Staying Ahead of the Curve: Teaching Math Pro-Actively"

We will share valuable information about effective instruction and information about embedding the Process Standards for Mathematics. Sessions will have presenters from across the state, the Indiana Department of Education and also national educational leaders. Most of the presenters are current math educators who have a wealth of information and field-tested ideas to share. We also have some notable authors presenting. A business meeting will be held Monday morning and there will be a speaker at the luncheon on Monday. The conference begins at 1 pm on Sunday, November 6. Doors will open at noon for check-in. Register today!

Start: November 06, 2016 12:00 PM

End: November 07, 2016 5:30 PM

Location: (New location) Marriott East – 7202 East 21st Street, Indianapolis, IN 46219
Conference Registration (includes annual ICTM membership) – $110.00 (USD)
Conference Registration On Site – $130.00 (USD)
Discounted Registration for our Lifetime and 3-Year ICTM Members – $95.00 (USD)
Presenter at Fall Conference – Variable
The breakfast and luncheon fee for Monday is $20.00.

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