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Lilly Endowment Announces Teacher Creativity Fellowship Program for 2012



L I L L Y
E N D O W M E N T
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Lilly Endowment Inc., an Indianapolis-based private philanthropic foundation, is pleased to announce its successful Teacher Creativity Fellowship Program for 2012.

For 2012 the Endowment will again offer up to 120 grants of \$8,000 each to Indiana's public and private school teachers (including guidance counselors and library/media specialists), principals and assistant principals for projects of the individual's choice.

For a full program description, go to lillyendowment.org or teachercreativity.org.

Indiana Science Olympiad

For the past 27 years, Science Olympiad has led a revolution in science education. What began as a grassroots assembly of science teachers is now one of the premiere science competitions in the nation, providing rigorous, standards-based challenges to nearly 6,000 teams in 49 states. Science Olympiad's ever-changing lineup of events in all STEM disciplines provides a variety of career choices and exposure to

practicing scientists and mentors. Recognized as a model program by the National Governors Association Center for Best Practices, Science Olympiad is committed to increasing global competitiveness for the next generation of scientists.

For more information:
www.indianascienceolympiad.org

Rose-Hulman High-school Mathematics Contest

The forty-sixth contest takes place Saturday, November 12, 2011 starting at 11:00 AM EST.

Registration will be due by Friday, October 28, 2011.

There is a \$3.00 per student registration fee for the contest. Students and staff have the option of purchasing lunch tickets for \$6.00 apiece. No student will be allowed to participate in the Contest unless the reg-

istration fee has been paid.

Each school may enter four students from each of the four years - freshman, sophomore, junior and senior. An unlimited number of alternates may also compete.

Team awards will be presented on the basis of the performance of the preselected team members.

Each school may bring as

many alternates as they choose. Alternates are eligible for individual awards.

The top scoring male and female freshman are presented with the Sally Shonk Memorial Award. The top scoring male and female sophomores are presented with the Mary Rhein Memorial Award.

For more information:
www.rose-hulman.edu/~rickert/NovContest/



www.bie.org

BIE Project Based Learning

About BIE

The Buck Institute for Education (BIE) is dedicated to improving 21st Century teaching and learning throughout the world by creating and disseminating products, practices and knowledge for effective Project Based Learning (PBL).

BIE contributes to Project Based Learning through product development, services, research, and online learning.

Product Development

BIE publishes books and articles to support K-14 teachers in designing and implementing PBL. We create free materials - "Free-BIEs" - such as project planning forms, student handouts, rubrics, and articles for educators to download and use. BIE also created curriculum units for high school Economics and U.S. Government courses, Project Based Economics and Project

Based Government.

Services

BIE conducts introductory and advanced PBL workshops, provides instructional coaching, and consults with organizational leaders.

Research

BIE partners on research projects to collect evidence about the effectiveness of PBL and advance knowledge about its use. We provide access to studies and summaries of research on PBL practices and outcomes.

Online Learning

BIE offers online resources including "how-to" videos and example projects, a Do-It-Yourself Tutorial, and a Project Search tool.



www.edutopia.org/project-learning-introduction

Edutopia: Why Teach with Project-Based Learning?

Project learning, also known as project-based learning, is a dynamic approach to teaching in which students explore real-world problems and challenges, simultaneously developing cross-curriculum skills while working in small collaborative groups.

Because project-based learning is filled with active and engaged learning, it inspires students to obtain a deeper knowledge of the subjects they're studying. Research also indicates that students are more likely to retain the knowledge gained through this approach far more readily than through traditional textbook-centered learning. In addition, students develop confidence and self-direction as they move through both team-based

and independent work. In the process of completing their projects, students also hone their organizational and research skills, develop better communication with their peers and adults, and often work within their community while seeing the positive effect of their work.

Because students are evaluated on the basis of their projects, rather than on the comparatively narrow rubrics defined by exams, essays, and written reports, assessment of project-based work is often more meaningful to them. They quickly see how academic work can connect to real-life issues -- and may even be inspired to pursue a career or engage in activism that relates to the project they developed.

Students also thrive on the greater flexibility of project learning. In addition to participating in traditional assessment, they might be evaluated on presentations to a community audience they have assiduously prepared for, informative tours of a local historical site based on their recently acquired expertise, or screening of a scripted film they have painstakingly produced.

Project learning is also an effective way to integrate technology into the curriculum. A typical project can easily accommodate computers and the Internet, as well as interactive whiteboards, global-positioning-system (GPS) devices, digital still cameras, video cameras, and associated editing equipment.



mathalicious.com

Mathalicious

According to a recent Raytheon survey 61 percent of middle school students say they'd rather take out the garbage than do their math homework. They view math as a bunch of random skills with no connection to the real world and constantly ask, "When will I ever use this?"

If you're a teacher, Mathalicious is here to help you respond, "Now."

Mathalicious is transforming the way math is taught by providing middle and high school teachers with the most relevant, engaging, and effective math lessons anywhere. We do this by designing lessons around real-world topics that students care about, from sports to technol-

ogy to health & wellness. This contextual approach helps students make sense of the math, and develop both conceptual understanding and procedural fluency.

Using Mathalicious is easy. It doesn't require you to attend all-day professional development or throw away your existing curriculum. Mathalicious lessons are designed to be modular and flexible, and to compliment what you're already doing. Use them to introduce a topic, or use them as a real-world extension. Whatever you choose, we provide you with everything you need to teach the lesson successfully.

Not all resources on this site are free. The samples are worth a visit!



mathplanet.com

Math Planet

Math planet is an online community where one can study math for free. Take our high school math courses in Pre-algebra, Algebra 1, Algebra 2 and Geometry. We have also prepared practice tests for the SAT and ACT. All

material is focused on US high school math but since math is the same all over the world welcome everybody to study with us - it is all for free.

Mathplanet.com was created in spring 2011 with the purpose to spread

mathematical knowledge worldwide. Everything on the site is free to use for non-profit purposes and you don't need to register in order to watch our videos or read our examples. Study math with us online - all for free!



sophia.org

SOPHIA

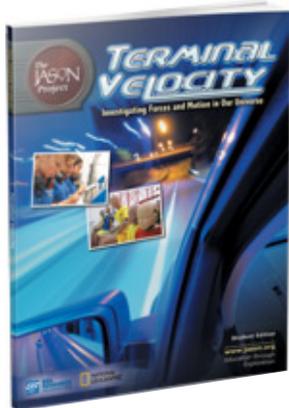
Sophia enables innovation by connecting learners, teachers, experts and parents. We provide an academic community where everyone has access to learning that surrounds and supports the traditional classroom. We encourage variety and creativity in teaching so that everyone can learn in a way that makes sense to them.

Sophia is a social teaching and learning platform that taps the teacher in all of us and enhances the learning process by providing access to a wealth of knowledge, help, instruction, standards-aligned content, and expertise available to learners everywhere.

We want to harness technology for the betterment of the educational system as a whole. We can all help

others learn. And Sophia's mission is to be a catalyst in this educational movement.

SOPHIA has 22,000 video lessons covering every math concept!



www.jason.org

The Jason Project - Terminal Velocity

Through research articles, inquiry-based activities, videos, games, and other multimedia, students investigate and analyze the dynamics of forces and motion.

Through their expeditions, students will:

Investigate how an understanding of velocity, momentum, and acceleration is key to designing cars that can absorb energy during a crash and save lives.

Explore how scientists use Newton's three laws to land a one ton rover safely on the surface of Mars.

Analyze how simple and complex machines are being used to clean up a

potentially devastating oil spill in the Gulf of Mexico.

Meet exciting host researchers engaged in all of these important projects and learn about their work.

Available in print and free online editions, Terminal Velocity is designed to fit within school districts' core curriculum. It provides at least five to nine weeks of material with suggested lesson plans, extensions, interdisciplinary connections, and other teacher resources.

Additional curriculum units meeting or exceeding Indiana standards are available as well!

Design Squad Nation

The DESIGN SQUAD NATION Web site is the online companion to the television series airing on PBS Kids. The site targets kids ages 8 and older and features interactive games, engaging video and creative activities.

Like the show, the goal of the Web site is to give kids a stronger understanding of the design process, and the connection between

engineering and the things we all use in everyday life. The results of engineering are all around us: from cars to cameras and everything in between. Being an engineer doesn't mean being a "nerd" with a pocket protector. It means being a creative problem solver, an innovative thinker and a team player.

The Web site offers many examples that contextual-

ize engineering concepts shown in the series, and spurs kids to explore those concepts on their own or with a parent or educator. Together, the DESIGN SQUAD NATION television series and Web site equips kids with science and math skills, inspires them and lays the foundation they need to participate in engineering activities later in life.

Inside the Cell - National Institutes of Health

Inside the Cell is a science education booklet that explores the interior design of cells and vividly describes the processes that take place within its organelles and structures. Each chapter includes a few review questions.

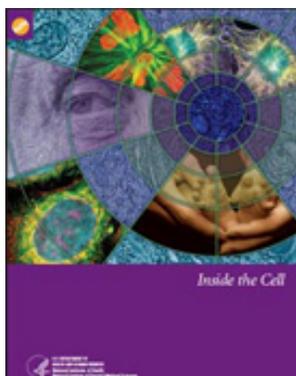
Most publications pro-

duced by NIGMS are targeted to high school students.

Doing Science is an engaging four-lesson curriculum supplement targeted at middle school students. This field-tested unit, which focuses on inquiry and how to develop test-

able questions, is best used at the beginning of the academic year. Doing Science is free and can be ordered at

science.education.nih.gov/customers.nsf/middle-school.htm



publications.nigms.nih.gov/inside-the-cell



pbskids.org/designsquad



www.kerpoof.com

Kerpoof Scholastics

Kerpoof's multimedia software is used by kids worldwide to create original artwork, animated movies, stories, greeting cards and more. The site is meant to be fun, but we're serious about its educational value.

Elementary and middle school teachers can use Kerpoof in many ways to enhance classroom activities while meeting a range of educational standards.

Lesson Plans - Looking for a fresh way to approach sequencing? Art history? The life cycle of a butterfly? Download free lesson plans for a variety of disciplines, from math and science to social studies and foreign languages.

Teacher Accounts - Kerpoof offers educators the ability to register students and arrange them into classes. Students may chat with each other, post creations on a class message board (moderated by you), and collaborate on a project in real-time from different computers.

Educational Standards - We've cross-referenced Kerpoof activities with the state and national standards they can be used to meet.

Newsletter - Kerpoof publishes a free electronic newsletter that highlights new features, lesson plans, and ideas for using Kerpoof in the classroom.



beyondpenguins.nsdl.org

Beyond Penguins and Polar Bears

Beyond Penguins and Polar Bears is an online magazine integrating science, literacy, and the polar regions.

In each thematic issue, you can:

- Explore the Arctic and Antarctica

- Learn science concepts and literacy strategies
- Read about misconceptions, equity, and technology
- Discover lessons and unit plans aligned to national standards
- Listen to podcasts

and electronic books, or browse the photo gallery

Beyond Penguins and Polar Bears has been awarded a 2010 SPORE award from AAAS!



www.scienceinvestigator.org

Investi-gator!

The Investi-gator is a free science journal for upper elementary level students. Each article has the following components:

Meet the Scientist- An introduction to the scientist or scientists who conducted the research. **Glossary**- Possible new terms you will find in the article. Glossary words are printed in bold in the article.

Thinking About Science- A short introduction to something about the scientific process that is related to the research being presented. **Thinking About the Environment**- A short introduction to something about the natural environment that is related to the research being presented.

Introduction- The part of the written scientific paper that introduces the scientific problem or question the scientists want to solve or answer. **Method**- The part of the written scientific paper that describes how

the scientists collected and analyzed their data or information. **Findings**- The part of the written scientific paper that describes what the scientists discovered. **Discussion**- The part of the written scientific paper that summarizes the research and offers any new insights. **Reflection Sections**- These are questions placed behind the Introduction, Methods, Findings, and Discussion sections. The purpose of the questions is to help students think about what they have read. **FACTivity**- This is an activity that supports the article and can be done with your class.

Each edition also has a lesson plan, word games, answers to the Reflection Sections, and correlations to National Science Education Standards at the back of the journal.

Professional Development at The Children's Museum!

Frogs Workshop For Teachers of Grades K–3 Thursday, Sept. 29, 2011 9 a.m.–3:30 p.m.

Hop into this workshop connected with our temporary exhibit, Frogs: A Chorus of Colors. Explore life cycles, habitats, food webs, and conservation. Discover literacy strategies with nonfiction literature and science content.

Fee: \$55 Registration deadline: Sept. 15

Science Fair 101 For Teachers of Grades K–8 Wednesday, Nov. 30, 2011 4:30–6:30 p.m.

Interested in the Science Fair 101 program? Attend our two-hour workshop at the museum. Participants will learn how to incorporate science fairs into their classroom and connect projects to their science curriculum.

Fee: \$25 Registration deadline: Nov. 16

Nanotechnology Workshop For Teachers of Grades 6–8 Wednesday, Sept. 14, 2011 9 a.m.–3:30 p.m.

Looking for an innovative way to teach about molecules and atoms? Join us for a workshop on nanotechnology. The workshop will explore size and scale, applications, nanoscale models, properties of matter, and tools used to study the nanoscale. Fee: \$25 Registration deadline: Aug. 31

Flight Adventures Workshop For Teachers of Grades 3–5 Wednesday, March 21 9 a.m.–3:30 p.m.

The Children's Museum of Indianapolis partnered with the Academy of Model Aeronautics (AMA) to create a unique program on the science of flight. Explore principles such as weight, lift, thrust, and drag.

Fee: A \$25 deposit is due upon registration and will be refunded after workshop completion.

Registration deadline: March 7

What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 2,700.
- 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!
- Join discussions with students, parents, or other teachers inside chats and forums.
- 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 CRUs 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



PRISM is a free website that provides collections of online resources for Indiana educators in the fields of science, technology, engineering, and mathematics (STEM). The primary collection of digital teaching materials is indexed according to the Indiana Academic Standards for 6th, 7th, and 8th grade and secondary education courses.