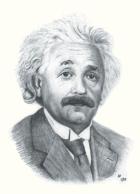


#### Celebrate

## the World Year of Physics 2005

www.physics2005.org

Coinciding with the 100th anniversary of Albert Einstein's "Miraculous Year,"



events of the World Year of Physics 2005 aim to raise worldwide public awareness for physics and more generally for physical sciences.

Einstein printed with permission from Rodrico Viegas, Uruguay. Mr. Viegas is a 19-year-old artist and chemical engineering student at the University of Uruguay.

Classroom presentations are free of charge. Contact Nancy Lanning, edreg@fnal.gov or 630-840-5588.

#### Please provide:

- Your name, telephone and e-mail address.
- · Presentation requested.
- Date of request.
- Grade level and number of students.
- School name.
- A map to the school.

Fermi National Accelerator Laboratory
Office of Science / U.S. Department of Energy
Managed by Universities Research Association, Inc.

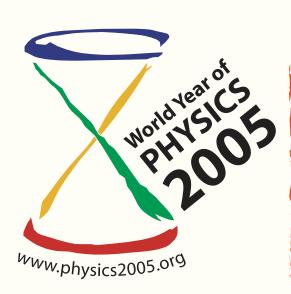
Funded in part by Fermilab Friends for Science Education from a grant by an anoymous donor.



Fermilab Education Office P.O. Box 500, MS 226 Batavia, IL 60510-0500

# Bringing the World Year of Physics 2005 to your school!

Invite someone to visit your classroom.



Fermilab scientific and technical staff are eager to celebrate with your students.



#### Choose a presentation for your classroom.

#### **Charge! Electricity and Magnetism Grades 3-5**

Fermilab scientists know how magnets big and small work, how they apply to our world and the power they have over us! Students explore the relationship of magnetism and electricity and have questions answered about the power of these forces.

#### Forces and Motion Grades 4-8

Speed, motion, momentum, gravity, forces—these realities control our world, but sometimes we don't understand the differences. Fermilab scientists share activities and demonstrations to help students develop a deeper understanding of the concepts of force and motion.

#### Physics of Sports Grades 7-12

Fermilab scientists guide a discussion and exploration of the impact physics has in a variety of sports. Explore the why's and how's of better equipment and techniques or learn how to analyze swings, strokes and more. Inspired by the *Active Physics* series and other materials.

## Zap! Light and Color Grades 2-6

Light helps us learn and explore our world! Students explore the phenomenon of light and how the waves and particles produce our colorful world.

#### Stories of Science Grades 5-8

The world of physical science past to present to future contains drama, characters and intrigue. This presentation weaves histories and stories of current-day scientists with content and stories of future science.

#### Cosmic Rays Grades 9-12

Use our scintillation detector to measure the daily barrage of cosmic rays. We'll collect data in your classroom and upload the file to our web portal. Your students can use the portal to access a network of these detectors scattered around the country, analyze data and use its tools to publish their findings.

## Mr. Freeze, the Cryogenics Show Grades 2-8

This assembly-style show demonstrates and involves students in the fascinating field of super-cooling. Fermilab engineers use liquid nitrogen to supercool magnets for least resistance; other industries use supercooling for other purposes too. Learn about this cool field. Contact Carol Benson, 630-840-8258.

#### Physics in the Real World Grades 6-12

Scientific and technical staff share the real world of physics. What are their days like on the job at Fermilab? What do they do? How do physicists learn to be problem solvers? What research are they conducting? What kind of tools do they use?

## Space, Time and Einstein Grades 7-12

Can you catch up with a ray of light? What happens when things go very fast? Einstein realized that space and time (what are they?) get mixed up. How many dimensions are there? Does gravity have anything to do with electricity and magnetism?