

Science Saturdays

This and other Science Saturday programs are brought to you by the Wisconsin Initiative for Science Literacy (WISL), directed by Prof. Bassam Z. Shakhashiri of the UW-Madison Chemistry Department, who is well known for his "Science is Fun" and "Science on the Radio" programs.

About Energy Matters

Science Saturdays: Energy Matters is prepared and presented by Dr. Rod Schreiner and Dr. Linda Zelewski of the Chemistry Department, and Prof. Wendy Crone of the Department of Engineering Physics.

Session One: Energy and Matter

Energy makes everything happen. It makes things move and change and glow. Energy has many forms, and we will investigate several of them. You'll build a battery to convert chemical energy to electrical energy. You'll build a motor that changes electrical energy into motion. We'll use batteries to make light and to cause a variety of changes, and then build a motor to convert electrical energy to motion.

Session Two: Polymers

The world is full of polymers, both natural and artificial. Wood, muscle, and fur are all polymers, and so are the plastics we use everyday. You'll examine some of the remarkable properties of polymers and you'll even make some of your own polymers to study and take home.

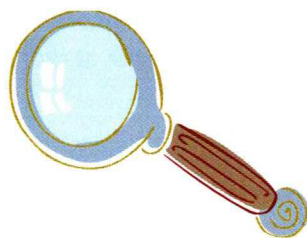
Session Three: Nanotechnology

Nanotechnology is the study and design of materials at the nanoscale, the scale of atoms. Nanotechnology is responsible for products that we use daily, including light-emitting diodes (LEDs) and storage devices in computers. Come learn about nanotechnology and experience the excitement of new technology first hand! You'll have fun learning about metal that remembers its shape, a liquid that can be moved and shaped from afar, and much more.

What is WISL?

The Wisconsin Initiative for Science Literacy (WISL) at the University of Wisconsin-Madison has two goals: to promote literacy in science, mathematics, and technology among the general public; and to attract future generations of researchers, educators, and entrepreneurs to scientific fields. Our offerings include not only locally known programs such as "Science is Fun," but also science outreach to urban children (the Science in the City project), outreach to science teachers (Conversations in Science), and collaborative programs between the sciences, arts and humanities.

For more information,
visit our "Science is Fun" website at
www.scifun.org



**Watch for announcements
of future
"Science Saturday"
sessions!!**

Science Saturdays ENERGY MATTERS



**For middle school students
and their parents**

Three Saturday Mornings

**November 8, 15, and 22, 2003
9:00 a.m. to 12:00 noon**

at

University of Wisconsin-Madison

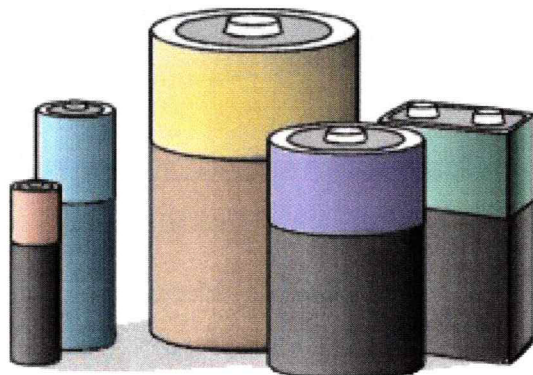
**A program of the
Wisconsin Initiative for Science Literacy
at the University of Wisconsin-Madison**

Are you Ready for Fun?

Are you in grades six to eight — or the parent of a student in those grades — and are the two of you ready for three Saturdays of fun? Are you ready to build your own scientific apparatus and use it to investigate the world around you and look deep into the universe? Then you need *Science Saturday: Energy Matters!*

Build and Experiment

Each Saturday students and parents work together on different and challenging science projects. For example, you'll make your own battery and use it to run a motor that you build. You'll make your own plastics and investigate their properties. And you'll examine the amazing behavior of some new, high-tech materials.



During the three Saturday sessions, you will conduct and observe fun experiments in university laboratories. You will also receive instructions for performing additional experiments at home, which you can tell about at the next session.

Learn New Skills

As you record your observations, you will also learn how to draw to scale and how to make your own special observation tools such as hand-made magnifiers. You will be doing real science—raising questions, making observations, and conducting experiments to find answers. You will be responsible for keeping good records in your own personal notebook so that you can share all your exciting findings with the group at the next session.

For Children *and* Their Parents

This program is for one child and one parent together. In fact, we *require* that the parent (or grandparent or guardian) make a firm commitment to attend *all three sessions* and fully participate in the hands-on activities. Parents will be paired with their children in small teams aided by staff. Child and parent will get more out of the session because the other is present.

Cost

Cost for child and parent together is \$30. This covers all materials and a snack at each session.

Questions?

Contact us at

Wisconsin Initiative for Science Literacy

Department of Chemistry
1101 University Ave.
Madison, WI 53706
(608) 263-2424
scifun@chem.wisc.edu

Application

Parents should complete the form below and also write a brief statement about what your child and you hope to gain from the Saturday Sessions. **We must receive your application by September 19.** You will be notified of selection during the week of September 22. If selected, you will be asked to send your \$30 check and will receive directions to the program site.

Child's name (please print):

(first)

(last)

Child's age: _____ years Child's grade: _____

Name of school: _____

Name of participating parent or guardian:

(first)

(last)

Address:

(street)

(city)

(zip code)

Home phone number:

Parent's email address:

Parent's signature:

Clip and mail with your letter **by September 19** to:
Wisconsin Initiative for Science Literacy,
Department of Chemistry, 1101 University Ave.,
Madison, WI 53706-1396.