

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. Shakhshiri of the UW-Madison Dept. of Chemistry, who is well known for his "Science is Fun" and "Science on the Radio" programs.

Program Presenters

"Science Saturdays: Understanding Genetics" is prepared and presented by Prof. Raymond Kessel, Dept. of Medical Genetics; Michael Patrick, Director of the Teacher Enhancement Program, Dept. of Genetics; and Prof. William Tracy of Agronomy.

Session One -- "Human Genetics: Understanding why we are alike and why we are different." The three principles of genetics are variation, continuity, and development. We will examine these principles by looking at how humans differ from each other, how that variation is passed on (heredity), and how that variation is expressed during development of an individual.

Session Two -- "The molecular machines behind genetics." What are genes, what do they do, what are they made of, how do they know what to do, where are their blueprints, and what happens when something goes wrong with the blueprint or the machine? Through demonstrations and hands-on activities, we will explore answers to these questions.

Session three-- "Corn: An example of genetics in action." Corn is the most important crop plant in the USA, and in other parts of the world. Through inquiry activities we will learn how genetics has contributed to the amazing development and variations of this and other important food and industrial crops.

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 with the sciences, arts and humanities.

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

**And watch for announcements of
future "Science Saturday"
Sessions!!**

Science Saturdays Understanding Genetics



**For 6th to 8th
Graders and
their parents**

Three Saturdays in Fall 2003

**November 1, 8, and 15
9:00 a.m. to 12:00 noon**

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

Are you Ready for Fun?

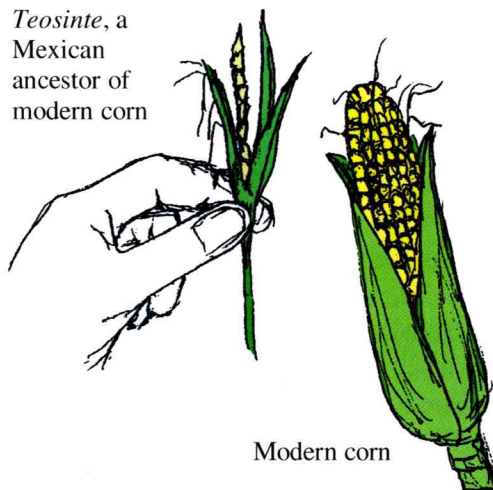
Are you in grades six to eight --or the parent of a student in those grades--and are the two of you ready for three Saturdays of fun? Are you ready to look at the role of genes in the human body as it grows and develops; play with models of genetic molecules; and see how scientists have modified genes of the corn plant to produce amazing results? Then you need *Science Saturday: Understanding Genetics*!

Build and Experiment

Each Saturday children and parents will do a different and challenging science project. Through demonstrations and hands-on activities, we will explore "how genes do what they do," which is the big question in genetics research today.

Genes can be thought of as "molecular machines" that perform very particular jobs. We will be asking how they "know" how and when to do their tasks, how they are made, where the blueprints are kept, and what happens when something goes wrong with the blueprint or the machine. We will look especially at how genes behave in the human body and in the corn plant, a crop that has changed dramatically over the years due to genetic selection.

Teosinte, a
Mexican
ancestor of
modern corn



Modern corn

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 and 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.

Registration Application for Understanding Genetics

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 and check by October 15.** You will be notified of selection during the week of **October 20** and will receive directions to the program site.

Child's name (please print): _____

(first) (last)

Child's age and grade: _____

School name and teacher's name:

Name of participating parent or guardian:

(first) (last)

Address: _____

(street)

(city)

(zip code)

(home phone)

(parent's email)

Parent's signature: _____

Clip and mail (with your letter and check) **by October 15** to **Wisconsin Initiative for Science Literacy, Department of Chemistry, 1101 University Ave., Madison, WI 53706-1396.**