

Registration Form

YES! I want to participate in the SCHEV-SBC NCLB program at Sweet Briar

Name _____

School _____

Grade(s) You Teach Currently/Near Future _____

Mailing information: (give full mailing addresses)

Work _____

Home _____

Where do you prefer we mail to you? HOME or WORK.
Circle one.

Work phone _____

Home phone _____

E-Mail address _____

Do you check email daily, weekly, or rarely? Circle one.

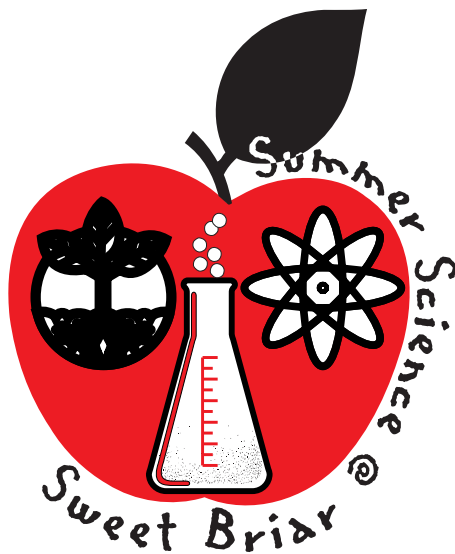
Register me for these SPRING courses during the 2005-2006 school year:

- February 4, 2006 – Circuits
- February 18, 2006 – Investigations for the Whole School Year
- February 25, 2006 – Eating Sunlight
- March 4, 2006 – Shake and Bake!
- March 18, 2006 – Geometry
- April 1, 2006 – Microscopy
- April 8, 2006 – Exploring My Watershed
- April 22, 2006 – Our Green Planet

Please mail directly to Jill Granger, 206 Guion, Sweet Briar VA, 24595 **OR e-mail** the same information to granger@sbc.edu
..... **cut here and mail in registration form**

PROJECT GOALS

Our goals include: (1) conveying to participants the “excitement of discovery” through well-planned, hands-on laboratory modules designed to stimulate the inquisitiveness and imagination of their students; (2) helping make science relevant for their students by using course modules that involve applications of science to everyday life and to current societal issues, yet are keyed to basic concepts included in the VA SOLs; and (3) spanning a range of grade levels and course subjects, so that students have the opportunity to benefit from an on-going exposure to inquiry-based, hands-on science. We believe achievement of these goals will have a very positive impact on science SOL test scores.



Inquiry Approaches to Math and Science: Grades 3-8

Academic Year Program

2005-2006

SPRING PROGRAM BROCHURE

Sweet Briar College

Sweet Briar, VA

Funding for this Program has been provided by a grant from the State Council for Higher Education of Virginia under the federal No Child Left Behind initiative (SCHEV NCLB) and by Sweet Briar College.

INQUIRY APPROACHES TO MATH AND SCIENCE:

GRADES 3-8

TEACHER DEVELOPMENT WORKSHOPS

ACADEMIC YEAR PROGRAM

This is the 7th Professional Workshop for Central Virginia Teachers in Science and Mathematics to be held at Sweet Briar College and sponsored by the State Council of Higher Education for Virginia. The summer program was held in July 2005. The academic year program is an additional follow-on activity to extend the learning of the summer participants and also to introduce other teachers to new hands-on ways of doing science and math in the elementary classroom.

THIS YEAR'S PROGRAM

Participants will conduct hands-on experiments that cover a broad range of SOLs in grades 3-8. Key concepts will have their foundations in the traditional areas of biology, chemistry, physics, and mathematics – as described in this brochure. All activities are based around a “real-world” application of science and math and are delivered through an inquiry-based pedagogy. Participants will learn to interpret and present their data.

One content session will be held each day. Participants will be conducting experiments doing activities to learn more about the science or math content area and data analysis. Workshops will typically begin at 9:00 and end around 3:00 each day with a lunch break around noon.

Summer 2005 workshop participants will get **priority registration** for ALL of the Academic Year program workshops.

If you are a previous summer workshop attendee or if you have participated in any of our previous academic year programs you may be interested in participating in this year's Academic Year program. Contact the project director, Jill Granger, to determine the extent of overlap from any previously attended program. All of our previous participants are warmly welcomed back!

WHAT'S PROVIDED

All necessary supplies and materials for the program will be provided. Lunch will be provided at the College for workshop attendees. **There is no cost to Virginia certified 3-8 grade teachers to attend;** your registration is paid for by the SCHEV-SBC grant. Certificates of participation will be provided upon request and may be used toward recertification as arranged between you and your school system.

FOR MORE INFORMATION OR TO REGISTER

Questions regarding the Academic Year Program should be addressed to: Jill Granger, Project Director, SCHEV-SBC Professional Development Project, 206 Guion Science Center, Sweet Briar, VA 24505; (434) 381-6166; granger@sbc.edu. To register: Complete the registration form from this brochure and mail it directly to Dr. Granger or e-mail the same information to granger@sbc.edu. If you register by email, please include all information from the registration form.

Mail Your Registration Form to

Jill Granger, Project Director

SCHEV-SBC Professional Development Workshop

206 Guion Science Center

Sweet Briar College, VA 24595

WORKSHOP DESCRIPTIONS: SPRING PROGRAM

INQUIRY APPROACHES TO MATH AND SCIENCE:

GRADES 3-8

SWEET BRIAR COLLEGE

February 4, 2006: Circuits

Instructor: Hank Yochum

Participants will do experiments with simple bulb and battery circuits. Series and parallel circuits will be used to develop a model for electric current. Participants will build motors with magnets, wire, and batteries. SOLs 2.2, 4.3, 6.2 and the .1s.

February 18, 2006: Investigations for the Whole School Year

Instructor: Jill Granger

Utilizing materials from AIMS Education Foundation, we will explore investigations for teaching the SOL strands on Scientific Investigation, Reasoning, and Logic throughout the entire school year. Materials are specific for Grades 5 and 6, but may be adapted up or down.

February 25, 2006: Eating sunlight: the capture and flow of energy in ecosystems

Instructor: Janet Steven

In this workshop, we will cover the basics of photosynthesis and how it turns energy from the sun into food for other organisms. We will also explore structure and energy flow in food chains and webs. Experiments and activities will focus on the requirements for and products of photosynthesis, how organisms are interconnected through food webs, and the roles of producers, consumers, and decomposers. Science SOLs addressed: 3.5, 3.6, 4.4c, 4.5b, 4.5c, LS.6, LS.7, LS.9

March 4, 2006: Shake and Bake! Earthquakes and Volcanoes in a Broader Context

Instructor: Rebecca Ambers

Earthquakes and volcanoes are cool! In this workshop, we will do earthquake and volcano activities that capture student interest and use it to engage them in an exploration of related processes and skills, including the basic concepts behind plate tectonics and the physics of seismic and tsunami waves. We will also discuss how humans cope with and prepare for these natural disasters. SOL: 3.10, 5.7, 6.9, ES.2, ES.3, ES.6, ES.8, PS.9

March 18, 2006: Geometry: The Bridge Between Math and Art

Instructor: Steve Wassell

We will investigate a wide range of geometric concepts in two dimensions, from grades 3 through 8, touching wherever possible on the geometric ties between art and math, from classical Greek times through the 20th century. Hands-on activities with manipulatives and paper folding will be employed. The majority of Geometry Standards of Learning for Grades 3 through 8 will be involved, most notably SOL 3.19, 3.20, 4.16, 4.17, 5.14, 5.15, 6.14, 6.16, 7.10, 7.13, 8.8, 8.10.

April 1, 2006: It's a Small World - Adventures in Microscopy

Instructor: Robin Davies

Come and use Brock Magiscopes to explore the world of the cell. We will prepare and examine slides of plant, animal, algal, fungal and protozoan cells from a variety of readily available sources. We will also investigate how the microscope can be used to teach a variety of science concepts. Borrow the classroom set of these microscopes and explore with your students!

April 8, 2006: Exploring My Watershed: Investigations to Bring the Watershed Concept Home

Instructor: Judy Strang

Using schoolyard and classroom activities that focus on watersheds (water quality, forests, wetlands, aquatic food chains, erosion, water chemistry), participants will build an understanding of human impact on watersheds. SOL addressed: Science 4. 1, 4.8, 5.1, 5.7, 6.1, 6.7; Math 5.11, 5.19, 6.9, 6.18.

April 22, 2006: Our Green Planet: How to Make Plant Science Fun

Instructor: Heather Griscom

We will explore techniques for teaching botany in the classroom as well as outside. The objective is to increase students' botanical knowledge, observation powers, appreciation and curiosity about plants within the context of their environment. We will practice flower and fruit dissection, propagation techniques, simple experiments and tree identification.

Funding for this Program has been provided by a grant from the State Council for Higher Education of Virginia under the federal No Child Left Behind initiative (SCHEV NCLB) and by Sweet Briar College.

ACADEMIC YEAR IN-SERVICE PRESENTATIONS

Participants from the SCHEV-SBC Summer Institute “Investigate and Understand: Math and Science by Inquiry” (July 2005) are required to conduct one in-service presentation to the participants in one academic year workshop based on the implementation of summer workshop materials in their classrooms.

Presentations should be 10 - 15 minutes in length. The presenter should describe the activity, where and how it was presented to students, and should provide an evaluation of the impact on student learning. (Follow the general guidelines as given during the summer institute.) The presenter should be prepared to answer questions from the audience.

To schedule your presentation during the Academic Year Workshops – please notify Jill Granger by submitting the form below:

SIGN-UP

YES! I want to give a presentation during the SCHEV-SBC Academic Year “Inquiry Approaches to Math and Science: Grades 3-8” program at Sweet Briar:

Name _____

School _____

The Best Way to Contact You during the day: _____

**I would like to sign-up to present at one of the following workshops:
(Give 1st and 2nd choices please)**

_____ February 4, 2006

_____ February 18, 2006

_____ February 25, 2006

_____ March 4, 2006

_____ March 18, 2006

_____ April 1, 2006

_____ **Check here if you are planning NOT to do your presentation (waiving your stipend) this year.**

Please mail directly to Jill Granger, 206 Guion, Sweet Briar VA, 24595 **OR e-mail** the same information to *granger@sbc.edu*

Date received: _____