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 2006-2007 school year:

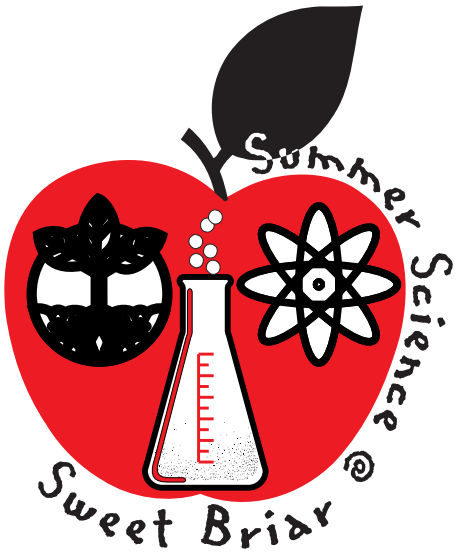
- ☐ **January 27, 2007, "Simple Machines - Using Observation and Math to Explain Motion"**
- ☐ **February 10, 2007 "Problem Solving Strategies"**
- ☐ **February 24, 2007: "Weather"**
- ☐ **March 17, 2007: "Investigations involving Measurement"**
- ☐ **March 24, 2007 "School Yard Science"**
- ☐ **April 28, 2007: "How to Make Plant Science Fun"**
- ☐ **Please send me more information about the SUMMER 2007 courses.**

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 and math SOL test scores.



Inquiry Approaches to Math and Science: Grades 3-8

Academic Year Program

2006-2007

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 8th 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 2006. 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 2006 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 24595; (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

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.

Workshop Descriptions: Spring Program
Inquiry Approaches to Math and Science:
Grades 3-8
Sweet Briar College

January 27, 2007 "Simple Machines - Using Observation and Math to Explain Motion"

Instructor: Laurna Kaatz, Instructional Support Specialist; Instructor, Physics Department, SBC
Starting with a variety of different simple machines, we will explore how they work and why they're useful. Next we will build machines using LEGOS and study their effectiveness through data analysis and observation. Your challenge will be to design and build your own simple machine. This is a great way to practice problem solving with math and science through direct application. Science SOLs: 3.1, 3.2, 4.1, 4.2b,c,d, 5.1d,e,f,g,h, 6.1c,e,f,g,h,i,j,k, 6.2a,e, PS.1, PS5a,a, PS.10c,d Math SOLs: 3.3, 3.5, 3.9, 3.14, 3.22, 4.9-4.11, 4.14-4.16, 4.20-4.22, 5.1-5.4, 5.6, 5.9, 5.11, 5.18-5.21, 6.4, 6.9-6.10, 6.18, 6.23, 7.5, 7.18-7.20, 8.14, 8.17

February 10, 2007 "Problem Solving Strategies"

Instructor: Dr. Bessie Kirkwood, Professor of Mathematical Sciences, SBC
This workshop, for grade 3-5 teachers, will feature activities designed to introduce students to a variety of problem-solving strategies, including "Use manipulatives," "Guess and check," and "Look for patterns." SOL: "Problem solving has been integrated throughout the six content strands." Activities will be included for Number and Number Sense; Computation and Estimation; Geometry; Patterns, Functions and Algebra.

February, 24, 2007: "Weather"

Instructor: Robin Davies, Professor of Biology, SBC
This workshop will include the study of weather phenomena and the forces responsible for weather patterns as well as construction of instruments for making weather measurements.
SOL Science 3.1, 3.11, 4.1, 4.6, 5.1, 6.1, 6.3, 6.5, 6.6, LS.1, PS.1, PS.7; SOL Math: 3.3, 3.5, 3.7, 3.11, 3.12, 3.14-3.17, 3.21, 3.22; 4.2, 4.4, 4.9, 4.11, 4.12, 4.20; 5.1, 5.2, 5.4, 5.11-5.13, 5.16, 5.18-5.22; 6.1, 6.9, 6.10, 6.13, 6.18, 6.19; 7.16-7.18; 8.6, 8.7, 8.12

March 17, 2007: "Investigations in Measurement"

Instructor: Jill Granger, Professor of Chemistry, SBC
This workshop will introduce teachers to hands-on investigations that teach and reinforce measurement skills in a variety of contexts (mass, length, volume, temperature, time, etc.) and which can be readily adapted to accommodate students' readiness levels. SOL Math: "Measurement" strand, grade 3-8; and SOL Science "Scientific Reasoning, Investigation, and Logic" strand, grade 3-PS

March 24, 2007 "School Yard Science"

Instructor: Judy Strang, Education Specialist, R.E.Lee Soil & Water Conservation District www.releeswcd.com and Program Coordinator, Pedlar River Institute www.streamcritters.org
Opportunities abound in a typical schoolyard for students to practice scientific thinking, hone observation and estimation skills, predict, record and interpret data. This workshop showcases field-tested activities from Judy Strang's outdoor learning programs and offers tips on starting a schoolyard habitat.
SOL: Math--measurement, estimation, probability/statistics, grades 3-5; Scientific Reasoning and Science 3.4, 4.5, 4.8, 5.5, 6.7. Language arts/technology applications as well.

April 28, 2007: "Our Green Planet: How to Make Plant Science Fun"

Instructor: Dr. Heather Griscom, Assistant Professor of Biology, James Madison University
We will explore techniques for teaching botany in the classroom as well as outside. In the classroom, we will learn about plant classification, anatomy, reproduction, growth, and experimentation. Outside, we will discuss plant diversity, identification, habitats, and ecology. The objective is to increase students' botanical knowledge of plant characteristics and life processes, their observation powers, and their appreciation and curiosity about plants. SOL Science 3.1 a-c, 3.1 e-f, 3.5 a, 3.6 a-c, 4.4 a-d, 4.5, 5.5 b-c, 6.1 a-c, 6.1 h-i

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 2006) 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)

Spring Program:

_____January 27, 2007

_____February 10, 2007

_____February 24, 2007

_____March 17, 2007

_____March 24, 2007

(no presentations April 28, 2007)

_____ 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: _____

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.