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 FALL courses during the 2006-2007 school year:

☐ **September 23, "Investigations with Bubbles"**

☐ **October 14, 2006 "Teaching with Insects and Other Invertebrates"**

☐ **Oct. 28: "The Giant Cell"**

☐ **Nov 11: Learning about force, motion,and energy by graphing – Experiments with a Personal Hovercraft**

☐ **Please send me more information about the SPRING 2007 courses.**

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

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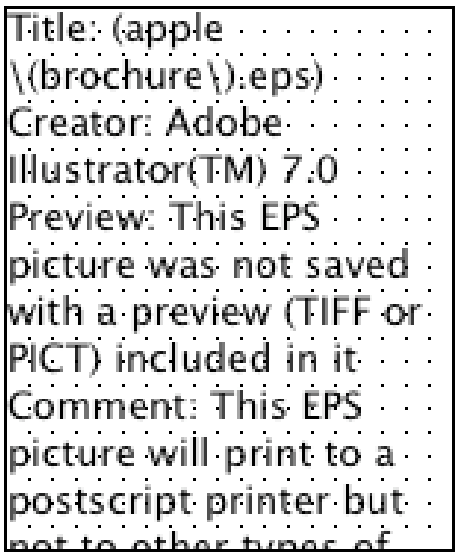
Project Goals

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.

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

Academic Year Program

2006-2007

FALL PROGRAM BROCHURE

Sweet Briar College

Sweet Briar, VA

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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 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

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: Fall Program

Inquiry Approaches to Math and Science:

Grades 3-8

Sweet Briar College

September 23, 2006 "Investigations with Bubbles"
Instructor: Jill Granger
Let your inner child free! We will use bubbles as the vehicle for a variety of investigations and good, clean fun. The physical characteristics of the bubble will be fully explored as we learn about the process of the investigation and how to interpret our results from group data. Bubble stations will be set up for less structured learning about aerodynamics, surface tension, light and color, etc. Activities will be based upon the Lawerence Hall of Science GEMS programs on Bubble•ology and the Bubble Festival.
SOL Science: K.1a,b,g,j; 1.1, 2.1, 3.1, 3.3, 4.1, 5.1b,c,d,e,f,g,h; 5.4, 6.1a,c,e,f,g,h,i,k, 6.5a;
SOL Math: 3.7, 3.12, 3.14, 3.21, 3.22, 4.4, 4.9b, 4.11, 4.12, 4.20, 5.1, 5.4, 5.9, 5.10, 5.11, 5.12, 5.18, 5.19, 5.20, 5.21, 5.22, 6.4, 6.6, 6.7, 6.9, 6.10, 6.12, 6.18, 6.19

October 14, 2006 "Teaching with Insects and Other Invertebrates"
Instructor: Linda Fink
This workshop will provide ideas, practical advice, and links to resources for teachers keen on welcoming insects and other invertebrates into their curriculum. We will conduct observational exercises and experiments and learn techniques for capturing, marking, feeding, and housing a variety of animals. We will work with representative nectar-feeders, herbivores, predators, aquatics, and soil inhabitants. Appropriate for teachers of grades K-5.
SOL Science: K.6, 1.5, 2.4, 2.5, 3.1, 3.4, 3.5, 3.6, 4.1, 4.5, 5.1

October 28, 2006 "The Giant Cell"
Instructor: Arlene Vinion-Dubiel
You can't see a cell with the naked eye, so how do you get your students to understand that something so small is so important? We will look at plant and animal cells in detail using microscopes as well as discuss some members of the kingdom Monera. The functions of cell organelles will be discussed, culminating in the construction of a giant cell to scale.
SOL Science: 5.1, 5.5, 6.1, LS1, LS2, LS5; SOL Math 6.9 and 7.6

November 11, 2006: "Learning about force, motion, and energy by graphing - Experiments with a Personal Hovercraft"
Instructor: Hank Yochum
By doing a variety of hands-on experiments with a small single-person hovercraft (available for teachers to borrow during the academic year), participants will gain an increased understanding of the concepts of position, speed, force, kinetic energy, and friction. Participants will gain experience in data collection and data analysis that can be used for many other experiments. Emphasis will be placed on the mathematical skills necessary for data analysis.
SOL Science 4.1, 4.2; SOL Math: 3.21, 3.22, 4.20

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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)

Fall Program:

_____September 23, 2006

(no presentations on Oct. 14)

_____October 28, 2006

_____November 11, 2006

_____ Check here if you are planning to do your presentation in one of our Jan – May, 2007 workshops, dates to be announced later.

_____ 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: _____

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