



# SECO Winter 2009 Newsletter

## SPECIAL POINTS OF INTEREST:

- **2010 SECO Professional Development Conference Registration Information**
- **Ohio Science Safety CD Free to Ohio School Systems**

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## From Your President ..

### Pat Cataldo

The Fall was a busy time for SECO. The Ohio Total Science Safety System Training went well and many of our members are now trained to present the professional development to other educators in the state. Distribution of the System will take place on Friday and Saturday of the **2010 SECO Professional Development Conference, February 25-27, 2010** in Columbus.

We are also serving the Ohio Department of Education by forming Focus

Groups to assist teachers and administrators in understanding the new academic content standards in science education which will be implemented soon.

SECO's mission as an organization is to help teachers and educators throughout the state of Ohio. I do hope all will be attending our conference in Columbus, in February, 2010. This conference helps up-date participants and encourages them to obtain the tools they will need to teach in the class-

room. I am encouraging you all to attend the conference and help make it a great success for both yourselves and your SECO constituents.

As my year as President concludes in February, I would like to say thank you for all your support. I hope that I have made a small difference in forwarding the mission of SECO.

Scientifically,  
Pat Cataldo  
SECO President, 2009

## SECO

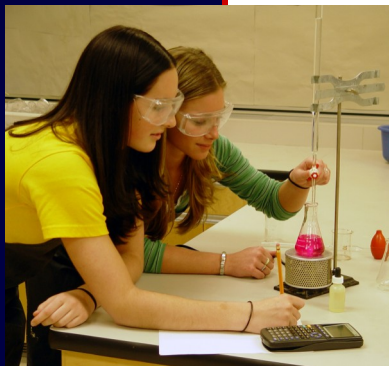
### 2010 Professional Development Conference

**February 25-27, 2010**

**Greater Columbus Convention Center**

[www.SECOonline.org](http://www.SECOonline.org)

# Focus Groups



## SECO-organized Focus Groups for the Ohio Department of Education Discussions and Education Stakeholder Feedback for the Revised Science Content Standards

**District I:** November 17, 3:45 PM - Chamberlin Hill School, Findlay, OH - Deb Wickerham, [dwickersham@findlaycityschools.org](mailto:dwickersham@findlaycityschools.org)

**District II:** December 12 2009, 8:30 AM - 11:30 AM - Panera, 4065 Pearl Road, Medina, OH - Tess Ewart, [mrsewart@aol.com](mailto:mrsewart@aol.com)

**District III:** For high school teachers: December 3, 4:00 PM - 5:30 PM,  
For Pre-K Grade 8 : December 8, 4:30 PM - 6:00 PM

Barbara Byrd Bennett Professional Development Center - Mike Hickey, [mikeshickey@yahoo.com](mailto:mikeshickey@yahoo.com).

For all teachers of science: December 2, Time TBD (likely between 4 and 7pm), Cleveland Botanical Garden, 11030 East Blvd. Cleveland, OH 44106 . Register with: Joyce Hinkle, [joyce44131@yahoo.com](mailto:joyce44131@yahoo.com) (Full)

For all teachers of science: December 8, starting at 4:00 PM, The Holden Arboretum, 9500 Sperry Rd, Kirtland 44094 in the Reinberger Classroom. Register with: Bob Marquard, [rmarquard@us.edu](mailto:rmarquard@us.edu) 216-321-8260 X8360 (Full)

For all teachers of science: December 10, time to be determined (likely between 4 and 7), Cleveland Metroparks Zoo – Education Building , 3900 Wildlife Way, Cleveland, OH 44109 . Register with: Vicki Searles , [vms@clevelandmetroparks.com](mailto:vms@clevelandmetroparks.com) , Curator of Conservation Education. (Full)

**District IV:** November 19, 2009, 4:00 PM, Youngstown State University, Beighley College of Education - [nora.mcdevitt@youngstown.K12.oh.us](mailto:nora.mcdevitt@youngstown.K12.oh.us)

**District V:** September 12, 9-12 at NMUSAF (National Museum of the United States Air Force) - [bviradrake@mdeca.org](mailto:bviradrake@mdeca.org)

**District VI:** December 5, 2009, 10:00 AM - 12:00 PM Center of Science and Industry (COSI), 333 West Broad Street, Columbus, OH [Melanie.Retterer@swcs.us](mailto:Melanie.Retterer@swcs.us).

**District X:** November 21, 2009, 1:00 PM - 3:00 PM Wellston High School - [lucasm@ohio.edu](mailto:lucasm@ohio.edu)

Would you like to be a part of the Ohio Content Standards in Science Revision?

Attend a SECO sponsored FOCUS GROUP.

Contact:

GO TO:

[www.SECOonline.org](http://www.SECOonline.org).

## NanoTeach Your Classroom

NanoTeach is recruiting teachers for a year-long, nationwide pilot program starting in the summer of 2010. Utilizing the *Designing Effective Science Instruction (DESI)* framework, teachers will learn to integrate nanoscience and technology content (NS&T) into their existing curricula. Through lessons and experiences that model the DESI instructional framework, participants will investigate dynamic NS&T content while delving into strategies that support effective science teaching.

**Looking for...** 30 high school teachers who teach physical science concepts

**Energize your teaching with ...** 1) effective instructional strategies to integrate cutting-edge nanoscience and technology; 2) real-world applications; and 3) professional connections that foster meaningful and dynamic teaching and learning.

**Receive ...** 1) \$3,000 stipend; and 2) paid travel and lodging to Denver, CO

Learn more or apply...[www.mcrel.org/NanoTeach/Recruiting](http://www.mcrel.org/NanoTeach/Recruiting)

# 2010 Professional Development SECO Conference

## REGISTRATION INFORMATION

By action of the SECO Board of Directors, registration is required for participation in all activities of the Conference. All participants, including presenters and presiders, must register for the Conference. Please follow directions on this page to prevent a delay in processing your registration. The rate will be determined by the postmark, fax or e-mail date. Registration forms and payment must be postmarked, faxed or e-mail dated on or before the Early-bird or Advance registration to receive those rates. If your registration qualifies for the Early-bird or Advance rate you will receive your Registration Packet (name badge, any tickets purchased and invoice/receipt) by mail. **Please remember to bring this packet to the Conference and proceed to the Program Pick Up area.** A \$5.00 fee will be assessed to reprint a name badge or replace lost or forgotten tickets. If your registration is postmarked, faxed or e-mailed after the deadline date you will be charged the full registration charge and your registration can be picked up at the Registration Desk. If you plan to register on site, bring along a completed registration form as it will save you some time. Only one person (except non-teaching spouse, guest or minor children) can be registered on a form. Make copies for additional people.

**School districts often mail registrations late resulting in registration problems. Please advise your district of the registration deadlines. A copy of the P.O. must accompany registration forms. P.O.s or registration forms will be returned to sender for completion.** Payment for a registration and fees may be made by purchase order, VISA, MasterCard, Discover or check.

## SHORT COURSES AND EVENTS

Short courses and events have limited available space. Mark your choices on the registration form and calculate your total fees on your first choices. Enrollment will be granted according to postmark, fax or e-mail dates and any adjustments to the total will be refunded or invoiced accordingly. Any expired or non-member indicating member registration will be charged dues.

## REFUND POLICY

Refund requests must be made in writing and be postmarked 12/31/2009 or earlier for a full refund minus a \$10.00 registrar processing fee. Requests postmarked between 1/01/2010 and 1/31/2010 will receive a 50% refund. Any request after 1/31/2010 must be accompanied by supporting documents (letter from principal, doctor or ?) to explain "emergency" reason for request. All documentation will be forwarded to the Executive Board for final determination.

**Your name tag and any special event tickets MUST be returned along with your request in order to be honored. ALL refunds will be processed after the Conference.**

## REGISTRATION FORM INSTRUCTIONS

Forms must be clearly printed in dark blue or black ink (especially if sending via fax) or typed. Each participant must fill out a separate form (*except non-teaching spouse, guest or minor children [under 18]*). If payment is being made by a Purchase Order a readable copy must accompany registration.

**SECO Member:** An active member, membership number and expiration date appear on the mailing label of your last SECO mailing. If you wish to join SECO or pay your renewal dues please fill out and include a membership form with your registration.

**Pre-Service Student:** A full-time college student is one not earning a salary in the education profession. Your registration must include a copy of your student ID or a letter from your advisor proving full-time status. Your name tag will identify you as "STUDENT".

**Retired Teacher:** A retired teacher is one no longer employed in the education profession. Your name tag will identify you as "RETIRED".

## SPECIAL NOTES

PLEASE do not send duplicate registrations i.e. fax/fax, fax/mail, mail/mail, email/mail.. NO REGISTRATION will be processed until all necessary information has been received. Please make sure all information is clear and easy to read.

**REGISTRATION PACKETS will not be mailed until the second half of January 2010.**

## SECO 2010 PROFESSIONAL DEVELOPMENT CONFERENCE

### SHORT COURSES

#### THURSDAY, FEBRUARY 25, 2010

**SC # 1 Exploring with the Senses in the Middle Level Classroom** ..... **Cost: \$ 10.00** Time: 2 PM – 6 PM  
Explore PASCO's probe ware activities for middle school science. See how SPARK Science Learning System can change your teaching practices and improve student understanding.

#### FRIDAY, FEBRUARY 26, 2010

**SC # 2 Picture Perfect Science** ..... **Cost: \$ 40.00** Time: 8 AM – 1 PM  
Authors Karen Ansberry and Emily Morgan will present several lessons integrating science and reading. Participants will receive a copy of *More Picture Perfect Science Lessons, K-4*.

**SC # 3 Some of My Favorites** ..... **Cost: \$ 25.00** Time: 2 PM – 6 PM  
Join us on a journey through time exploring Ohio and her past. Enjoy a virtual trip through the geologic periods through PowerPoint presentations, lab experiments, and activities. Each participant will receive copies of all activities, labs, and additional resources.

**SC # 4 Exploring with the Senses in the Elementary Classroom** ..... **Cost: \$ 10.00** Time: 2 PM – 6 PM  
Explore PASCO's probe ware activities for elementary science. See how SPARK Science Learning System can change your teaching practices and improve student understanding.

#### SATURDAY, FEBRUARY 27, 2010

**SC # 5 I am a New Science Teacher Now What?**..... **Cost: \$ 35.00** Time: 8 AM – 1 PM  
Are you a new or pre-service teacher? Learn about surviving your first years of teaching from science teachers with combined 60+ years. Topics include preparing for the first day of school, classroom management, etc. An online community will be started.

**SC # 6 Growing Up Wild** ..... **Cost: \$ 15.00** Time: 8 AM – 1 PM  
*Growing Up WILD* participants will receive a copy of this exciting curriculum and receive training in lessons.

**SC # 7 Inquiry into Gross Science: The Impolite Science of the Human Body** **Cost: \$ 55.00** Time: 8 AM – 1 PM  
Improve your understanding of life science concepts by participating in a inquiry-based workshop that explores two COSI exhibition areas: Grossology and Labs in Life.

**SC # 8 Highlighting Diversity and Interdependence in Nature**.....**Cost: \$ 15.00** Time: 8 AM – 1 PM  
Using hands-on activities we will analyze plant and animal structures and functions, energy flow through a system and classification. Metro Parks Naturalists designed this session for 3-5 grade teacher but all teachers are welcome.

#### Thursday, February 25, 2010

**E-1 Elementary Science Day**..... **Cost \$50.00** Time:10:30AM-4:30PM  
Elementary Science Day is designed exclusively for teachers of students K-5. This full-day program features a special presentation by **Dr. Ray Guarendi** who will speak of: *Laughter: The Sanity of Family*. Teachers will also participate in an engaging array of breakout workshops on topics such as using literature in the science class, formative assessments, and inquiry. Lunch is included.

#### Friday, February 26, 2010

**E-2 SEPUP ACADEMY**..... **Cost \$50.00** Time: 10:30AM-4:30PM  
This one-day program will increase your ability to use and take leadership for the Science Education for Public Understanding Program (SEPUP) in your school or district! Modeled after the successful summer ACADEMY programs, the program will feature a morning emphasis on such topics as using issues in SEPUP, writing to learn in SEPUP and using inquiry in SEPUP. Afternoon topics will include support for literacy, assessment and technology in SEPUP, and more. Instruction will be centered around core, hands-on labs and activities from SEPUP, and are designed for a wide audience - teachers, administrators, college faculty - all will find this program both accessible and interesting. Participants will receive selected middle level print and equipment samples from the full year programs covering the life, earth, and physical sciences. SEPUP programs are 100% conforming to the Ohio Science Academic Content Standards. Instructors are LAB-AIDS certified SEPUP trainers. For more information, go to [www.lab-aidsinstitute.com](http://www.lab-aidsinstitute.com). Lunch is included.

**FOR PROGRAM DESCRIPTIONS**

Go To:  
[www.SECOonline.org](http://www.SECOonline.org)

Carefully complete all information below. Items marked with (\*) will be printed on your badge. By action of the SECO board of directors, registration is required for participation in all convention activities. The label badge issued to each registrant is necessary for admission to all concurrent sessions, the exhibit hall and other activities.

**PLEASE PRINT**

First Name \* \_\_\_\_\_ Last Name \* \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \* \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 County \_\_\_\_\_ Member ID# (if you know it) \_\_\_\_\_  
 10 Digit Phone Number \_\_\_\_\_  
 E-mail Address \_\_\_\_\_  
 Position or Title \* \_\_\_\_\_  
 Institution \* \_\_\_\_\_  
**EACH PARTICIPANT (except non-teaching spouse guest or child) MUST COMPLETE A SEPARATE FORM**  
 Spouse's / Guest's Name (if attending) \_\_\_\_\_ (\$15)  
 Child's Name (if attending) \_\_\_\_\_ (\$15)

**2010 SECO Professional Development Conference 2010  
Science Education.....It's a Natural!**

**REGISTRATION FEES**

For early-bird or advance registration savings your registration must be **postmarked, faxed or e-mailed** on or before the dates shown:

	FEES/DEADLINES	
	EB. ADV. 12/15/09	REG. 2/10/10
Member	\$100	\$125
Non-Member	\$130	\$150
Retired Teacher	\$25	\$25
Pre-Service Student	\$15	\$15
(Attach copy of Student ID or letter verifying full time status)		\$15

**REGISTRATION FEES FOR ONE DAY ONLY**

	Thursday	Friday	Saturday
Member	\$75	\$75	\$35
Non-Member	\$100	\$100	\$100

**PAYMENT CALCULATOR**

REGISTRATION FEES \$ \_\_\_\_\_  
 SPOUSE/CHILDREN FEES \$ \_\_\_\_\_  
 TICKET TOTAL \$ \_\_\_\_\_  
 TOTAL DUE \$ \_\_\_\_\_  
 I AM PAYING BY: CHECK# \_\_\_\_\_  
 Make check payable to: SECO CONFERENCE  
 \* \* \* \* \*  
 VISA MASTERCARD DISCOVER  
 # \_\_\_\_\_  
 EXP. DATE \_\_\_\_\_ CVV2# \_\_\_\_\_  
 P.O. # \_\_\_\_\_  
 (COPY OF P.O. MUST BE ATTACHED)  
 Remember: if for any reason your School District/Employer does not follow through with payment of P.O., YOU are ultimately responsible for all costs.  
 Signature: \_\_\_\_\_

**SPECIAL EVENT TICKETS**

Short Courses	1 <sup>st</sup> Choice	2 <sup>nd</sup> Choice	Total
SC-1 Qty _____	X \$10 _____	_____	\$ _____
SC-2 Qty _____	X \$40 _____	_____	\$ _____
SC-3 Qty _____	X \$25 _____	_____	\$ _____
SC-4 Qty _____	X \$10 _____	_____	\$ _____
SC-5 Qty _____	X \$35 _____	_____	\$ _____
SC-6 Qty _____	X \$15 _____	_____	\$ _____
SC-7 Qty _____	X \$55 _____	_____	\$ _____
SC-8 Qty _____	X \$15 _____	_____	\$ _____

**Events**

E-1 - Elementary Science Day	X \$50 = \$ _____
E-2 - SEUP Academy	X \$50 = \$ _____

Thursday Buffet Lunch Qty \_\_\_\_\_ X \$20 = \$ \_\_\_\_\_  
 Friday Buffet Lunch: Qty \_\_\_\_\_ X \$20 = \$ \_\_\_\_\_  
 Cloak & Dagger Dinner Theater  
 Qty \_\_\_\_\_ X \$50 = \$ \_\_\_\_\_

I wish to renew my SECO Membership: \_\_\_\_\_ Yes

Membership Category \_\_\_\_\_  
 Amount of Payment \$ \_\_\_\_\_  
 (For Cost and Category - see [www.SECOonline.org](http://www.SECOonline.org))

MAIL TO: **SECO CONFERENCE**  
 PO BOX 349  
 SHARON CTR OH 44274-0349

FAX TO: 330-239-1371  
 E-MAIL TO: [SECO.conf@gmail.com](mailto:SECO.conf@gmail.com)  
 For details on all aspects of the conference go to:  
[www.SECOonline.org](http://www.SECOonline.org)

## Science Safety System FREE to Schools

SECO is facilitating the distribution of the **OHIO TOTAL SCIENCE SAFETY SYSTEM (OTSSS)** to Ohio Schools. A copy of OTSSS will be provided to each Ohio public middle/junior high and high school **FREE** of charge. However, to receive the school's copy, a representative of the school must attend a professional development (PD) session that accompanies the System. This PD will be provided at no cost during the 2010 SECO Professional Development Conference.

The Ohio Total Science Safety System is a "comprehensive" safety tool designed to aid pre-service and in-service educators in:

- *locating and applying applicable federal and state laws and codes, and professional standards;*
- *performing and documenting safety audits; &*
- *performing electronic options for establishing and managing chemical storerooms.*

The CD includes: two safe-chemical storage databases, label maker for all chemicals, nine strategic safety videos, and hundreds of safety web-links, with all information keyword searchable. Based on extensive continuing national and individual state research studies by Dr. Jack A. Gerlovich (Drake University, Jakel, Inc.), Dr. Dennis McElroy (Graceland University, Jakel, Inc.), and Kay Wagner (Science Education Council of Ohio), the comprehensive training and CD-ROM programs are designed to inform teachers of their professional responsibilities and to provide them the tools and confidence to address them.

The OTSSS was developed through a private grant solely to promote safety within the laboratories and schools in Ohio. The providers of the funds, used for the development and distribution of these materials, had the single purpose of reducing the potential for hazardous accidents occurring in Ohio's schools.

OTSSS is designed, specific to Ohio, by Jakel, Inc. in collaboration with, and under the review of, the Ohio Total Science Safety Advisory Board.

The **Professional Development Sessions** will occur on both **February 26, 2010** and **February 27, 2010**. The representative needs to attend only one session, but must register prior to attendance. There will be **NO on-site registration**. The one-per-school OTSSS will be distributed at the session.

Registration forms for the sessions will be mailed to each public and private school principal in Ohio. The private grant has provided a copy for each public middle/junior high and high school in Ohio. SECO has obtained funds for a limited number of systems for private schools.

**Check with your school principal to determine who will be attending a session to receive the school copy. Volunteer to attend and then register to attend the entire SECO Conference.**

### 2010 SECO Professional Development Conference Strands:

Nature of Science: A Way of Thinking

Instructional Technology in Science Classrooms

Teaching for Assessment versus Enduring Understanding

Science Teaching in Elementary Classrooms

Science, Technology, Engineering, and Mathematics (STEM)



## Ohio Academic Content Standards in Science

ODE's science team is actively seeking feedback during the standards revision process. In November, a draft of the Science standards will be posted on the Ohio Department of Education's Website for focus group discussions and education stakeholder feedback. Educators are encouraged to participate in professional conversations around the standards.

To facilitate that discussion, a toolkit will be provided that will include a Web-based video that documents the history of the development of the draft, facilitators notes and questions to capture the field's reflection on the standards. Reviewers will have the opportunity to provide feedback electronically or collectively as a group (school, district, organization).

SECO will be holding focus groups throughout the state

through December 31, 2009. Information concerning dates, times, and locations can be found at: [www.SECOonline.org](http://www.SECOonline.org).

This draft is the first phase in the science education standards and curriculum development revision process. This draft contains the goals, guiding principles and science content knowledge that students should know and be able to do and use to be competitive in the current and future global environments as high school graduates, college graduates, and employees and effective citizens. After the standards are adopted, the second phase of curriculum development revision process will include the development and refinement of model curriculum for each standard. This model curriculum will contain content clarifications, science skills and processes, learning outcomes, instructional strategies and re-

sources. The content standards are scheduled for adoption in June 2010, and the model curriculum is scheduled for adoption in March 2011.



For more information about the science standards revision process, please contact [con-stance.barsky@ode.state.oh.us](mailto:con-stance.barsky@ode.state.oh.us) or visit the Ohio Department of Education's Website at [education.ohio.gov](http://education.ohio.gov) and search keyword *revision*.

### ***Ohio Academic Content Standards in Science*** **FOCUS GROUPS**

**SECO is organizing FOCUS GROUP(S) in each of the SECO Districts.**  
**For additional information, times, and dates,**  
**go to**  
**[www.SECOonline.com](http://www.SECOonline.com).**

**ACT NOW! — the timeline is very short.**

## Science Education Council of Ohio

P.O. Box 2974  
Westerville, OH 43086-2876

Bulk Rate

You are invited to an evening of *MYSTERY*  
and *MURDER!*

Friday evening, February 26, 2010 at the  
*Cloak and Dagger Dinner Theater*

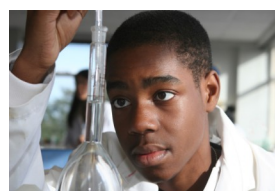
Order your tickets on the  
SECO Conference  
Registration Form

**Plan NOW to Attend:**

**SECO 2010  
Science  
Professional Development  
Conference**

The Greater Columbus  
Convention Center

**FEBRUARY 25-27, 2010**



Developing **EXCELLENCE** in **SCIENCE EDUCATION.**

## COSI Opportunities

COSI in Columbus has announced several events coming up for professional development and two programs for middle-schoolers.

### 1) Girls Discover...Health, Medicine, & More!

COSI's day long career exploration program for girls in grades 6-8 on Saturday March 20, 2010, 8:15 AM - 3:15 PM. The girls will meet women in a variety of health and medicine-related occupations, and explore how these can be exciting and rewarding careers for women. It is a chance to have a great time learning and making new friends. To reserve: a registration form will be available in January 2010 to be downloaded from the website [www.cosi.org/girlsdiscover](http://www.cosi.org/girlsdiscover) and faxed to 614.629.3226. The cost will be \$35 per person and includes two workshops, lunch, a souvenir t-shirt, and COSI admission. There will be scholarships available.

### 2) Boys Discover...Engineering!

COSI's day-long career exploration for boys in grades 6-8 on Saturday, February 13, 2010, 8:15 AM - 3:15 PM. The boys will meet professional engineers, explore careers in engineering, participate in hands-on activities and have a great time learning and making new friends. To reserve: download a registration form from [www.cosi.org/mentoring](http://www.cosi.org/mentoring) and fax it to 616.629.3226. The cost is \$25 per person and includes workshops, lunch, and COSI admission. There are scholarships available.

### 3) COSI Teacher Workshops: Inquiry Into GROSS Science: The Impolite Science of the Human Body

Improve your understanding of life science concepts by participating in an inquiry-based workshop that explores two COSI exhibition areas: GROSSOLOGY and Labs in Life. Ashland University credit is available for an additional fee when taking all three sessions:

- Session 1: The Human Body - February 25, 2010, 4:30 - 9:00 PM
- Session 2: Exercise Physiology - March 11, 2010, 4:30 - 9:00 PM
- Session 3: Nutrition - March 25, 2010, 4:30 - 9:00 PM

The cost is \$ 45 for each session or \$ 115 for all three sessions. Register by downloading an application at [www.cosi.org/workshops-k-12](http://www.cosi.org/workshops-k-12) or call 614.228.2674.