



STANYS Central Western Section

Winter Workshop

Thursday, February 9, 2012
Nazareth College

Schedule:

Registration 3:30-4:30, Smyth Hall

Workshop Session 4:30-5:30

Check out the Vendors 5:30-6:00

Dinner, Raffles & Invited Speaker 6:00-8:00

Workshops A-I:

A. Misconceptions Matter: Where Do They Come From? Where Do They Go?

Dr. Thomas O'Brien (General Interest, High School, Intermediate, College)

Science cartoons and simple-to-perform discrepant events will be used to raise awareness of the "top ten" sources of student misconceptions that restrict learning and to model "brain-powered science" instructional strategies that activate attention and catalyze conceptual change. Handouts provided.

B. Common Core Standards and implications for the NGSS

Mary Thomas, Antonietta Quinn (Elementary, General Interest)

This hands-on workshop is specifically designed for K-5 teachers to help integrate the new Common Core Curriculum with the proposed Next Generation Science Standards. It is possible, and can be FUN!

C. Leaders for a Greener Tomorrow - The Impact of Student Travel

Diane DiGravio (Intermediate, Environmental, Biology)

Take a journey to the Rainforests of Costa Rica as a science teacher reflects back on an eco-adventure of a lifetime. See actual footage of magnificent biodiversity and hear from student presenters as they share their experiences.

D. The Physics of Sports

Vincent Stornello (Intermediate, Physics)

Explore the wonderful world of sports through a physics teacher's lens! This hands-on demo-based workshop is full of exciting ideas to engage your students.

E. Science Olympiad... Why doesn't my school have a team?

Tom Lewis (General Interest, Intermediate, High School)

Come find out what Science Olympiad is all about and how to start a team. Ideas on how to get students excited about Science Olympiad events will be shared. Funding ideas for registration and materials will also be shared. Come and watch the excitement of the competition!

F. Nanoparticles and Nanoscale

Joseph Zuniga (High School Chemistry, Life Science, Earth Science)

This interesting topic will fascinate chemistry teachers for sure, but check it out... there are Life and Earth Science applications as well. Come one, come all for this workshop.

G. Applied Environmental Science

Steven Thomas (General Interest, Environmental Science)

Students at Fairport High School have been examining the nature of "beliefs and values" and how they impact cultural change. Students learn how to nurture consensus within the greater school community to develop partnerships and implement real cultural change to embrace environmental stewardship. Turn-key formulae for developing School/District wide initiatives such as paper & plastic recycling, lawn to wildflower garden conversions, and other initiatives are provided during this workshop.

H. How Students can use Technology and Learn at the Same Time

Michelle Ebert, Claudine Dixon (Earth Science, Intermediate)

See how students created projects using technology to improve vocabulary comprehension, the resources used, and the secret to the projects' success. Students' work will be displayed.

I. Thinking Big about Nano: Inquiry-based Nanoscience Lessons in the Classroom

Kelly Hutchinson-Anderson (General Interest, Chemistry, STEM)

Nanoscale science, engineering, and technology is at the forefront of advances in today's society. This session will engage participants in two different hands-on nanoscience lessons that can be incorporated into the science classroom - nanoscience in everyday life and gold nanoparticle biosensors. Participants will not only get hands-on experiences with the lessons, but will learn how to incorporate the activities successfully into the existing science curriculum to enhance students' interests and understanding of various science concepts.

Vendors:



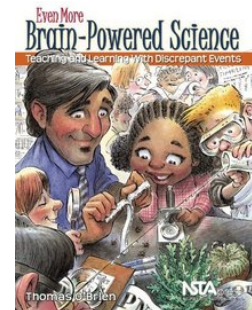
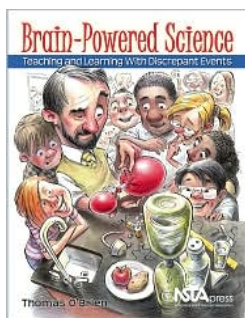
Invited Dinner Speaker: Dr. Thomas O'Brien

Director of Binghamton University's Center for Science, Math & Technology Education

In the *Brain-Powered Science: Teaching and Learning with Discrepant Events* Series, activities are based on the science behind a discrepant-event activity. A discrepant event in science teaching is an experiment or demonstration in which the outcome is counterintuitive, not what the students would expect. The discrepant event not only gets the students' attention but also is a demonstration of a major science concept. What makes Dr. O'Brien's books unique is that in addition to the extensive science content (mostly physical science but some biology and chemistry) each activity has a science education component, in which the discrepant event is shown to be analogous to a pedagogical principle.



Dr. O'Brien will enlighten and entertain registrants during the dinner lecture/demo. He will share activities from his series, along with explanations behind the discrepant events. CWS-STANYS will raffle off several of Dr. O'Brien's books, along with some wonderful boxed sets of all 3 editions!



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Directions to Nazareth College

From the East: Interstate 490 West to Route 31 West (Pittsford-Palmyra Road); take Route 31 for about 1.7 miles to the village of Pittsford; turn right at the four corners light onto Route 96 North (N Main St, becoming East Ave.); Nazareth is about 0.7 mile on Route 96 on the left. The first entrance at the light leads to the large parking lot, G, a short walk from Smyth Hall. The second entrance (bear right) leads to lots R and Q. Lots D and F adjacent to Smyth Hall are usually not available until 4:00 PM.

From the South: Interstate 390 North to Interstate 590 North; Exit from 590 at Route 31 East (Monroe Ave.); follow Route 31 for about 2.4 miles to the village of Pittsford; turn left at the four corners light onto Route 96 North (N Main St, becoming East Ave.); Nazareth is about 0.7 mile on Route 96 on the left. The first entrance at the light leads to the large parking lot, G, a short walk from Smyth Hall. The second entrance (bear right) leads to lots R and Q. Lots D and F adjacent to Smyth Hall are usually not available until 4:00 PM.

From the West: Interstate 490 East to the Linden Avenue/Route 441 exit (extreme right lane); turn right onto Linden Ave. and get into the left lane; turn left onto Route 96 (East Ave.); follow Route 96 (which turns right at St. John Fisher College); Nazareth is about 1 mile further (after Route 96 turns right) on the right. The first entrance (bear right) leads to lots R and Q. The second entrance, at the light, leads to the large parking lot, G, a short walk from Smyth Hall. Lots D and F adjacent to Smyth Hall are usually not available until 4:00 PM.

After 4:00 PM, parking is available in any non-handicap space.

Campus Map: <http://www.naz.edu/campus-map/>

Questions about the program? Email CWS Vice Chairperson Rebecca Scott, rdudekscott@gmail.com

Questions about registration or payment? Call CWS Chairperson Sheila Brady-Root at 585-218-9642 or e-mail sroot6@naz.edu

***Registration Form – please return, completed and with your payment, by
Saturday February 4, 2012***

Name _____ Address _____

Phone _____ School _____

Email _____

Letter of the Workshop session of your choice: _____ (4:30-5:30)

Registration includes workshop session of your choice, dinner, vendors, and the Invited Dinner Speaker, Dr. Thomas O'Brien

Registration Fee: \$25.00 (\$20.00 for current STANYS members and pre-service students).

Check(s) should be enclosed and made out to CWS-STANYS. Please return this form with your payment by February 4, 2012 to:

Michael Herzog

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