STANYS

Science Teachers Association of New York State

108th

Annual Conference and General Meeting

November 2 - 4, 2003

More Sunday Showcase!

Construct Knowledge • Revitalize Skills

Recharge Enthusiasm

PRE-CONFERENCE INFORMATION AND REGISTRATION FORMS

contents

IMPORTANT TELEPHONE NUMBERS

STANYS Office	516-783-5432
Conference Registration Information	607-748-0348/800-893-0348
To Register by Fax	607-467-6194
Hotel Reservation Information	800-647-6000
In the event of an emergency for which you need to be reached while at the Conference, call: Nevele Grande Hotels and Resort	845-647-6000

For current Conference Information see our web site: www.stanys.org
For current Hotel Information visit the hotel web site: www.nevele.com

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SCIENCE TEACHERS ASSOCIATION OF NEW YORK STATE, INC.

Construct Knowledge, Revitalize Skills, and Recharge Enthusiasm

Teachers and students continue to face unprecedented challenges as State and Federal testing requirements expand.

The intent of these requirements is, of course, to produce an adult population that is more scientifically literate than previous generations. However, in pursuit of that worthy goal, many teachers and students are experiencing frustration and anger as the perception and reality of these challenges become apparent.

The 108th STANYS Conference will address the needs of science teachers by providing opportunities to

- become more knowledgeable about curriculum changes and new instructional techniques,
- receive up-to-date information about continuing developments in science assessments,
- renew enthusiasm by sharing their successes and challenges with others

Our conference theme, "Construct Knowledge, Revitalize Skills, and Recharge Enthusiasm," will be reflected in the variety of workshops, which will be of interest to teachers from the early elementary grades through college.

In addition, knowledgeable exhibitors are eager to meet the everchanging needs of teachers.

Our speakers, Dr. Sam Bowser and Dr. Leon Lederman, promise to provide thought-provoking and inspirational presentations during our general sessions.

Again this year we are offering a conference structure which features the flexibility of registration for the full conference or Sunday only. The Sunday-only option is an important addition, which provides access to more than 50 workshops, the keynote address, and exhibits for those who are unable to attend Monday and Tuesday.

An element of this conference that should not be overlooked is the opportunity for networking, which each individual brings to and takes from the conference.

Whether we bring rural, city, or suburban concerns to the conference, we all face shrinking budgets and growing expectations. I encourage hopefulness in a time of change, if we utilize this opportunity to share our experiences and talents and recognize that we are not alone in facing these rising expectations. .

I look forward to meeting and greeting both new and old friends at STANYS 108th Conference.

Harvey Wiener
STANYS President 2003 - 2004

THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

Elementary, Middle, Secondary and Continuing Education
Office of Curriculum and Instruction
Assistant Director for Curriculum and Instruction
Tel. (518) 474-5922
Fax (518) 473-0858
E-mail: Aschiano@mail.nysed.gov

Dear Colleagues,

The 108th Annual Conference of the Science Teachers Association of New York State is one of the best ways for you and science educators to obtain necessary information to strengthen programs in your school that reflect promising practices in science education. Science educators in partnership with the NYS Education Department have called for changes in the way we teach and assess the science achievement of our students. SED and STANYS continue to partner on many ongoing initiatives to help teachers, coordinators, and administrators succeed in the challenges facing science educators. The STANYS Conference provides one of the best arrays of workshops, vendor and support organization exhibits, featured speakers, and ongoing opportunities to network with colleagues from across the state.

This year, there will be more than 200 workshops. Keynotes include Dr. Sam Bowser who will feature his experiences as a leader of research expeditions as well as Dr. Leon Lederman offering thought-provoking views on the teaching of commencement level science. Representatives from the State Education Department (SED) will provide updates on new initiatives, as well as be available to answer questions about specific programs. Exemplary educators will lead workshops dealing with a wide range of topics applicable to your district's needs, from elementary, middle/junior high, senior high subject areas to integrated MST education, supervision, assessment, and other aspects of professional development. In the Exhibits Hall, teachers can obtain up-to-date information that will help them develop budgets in a timely manner.

As the conference theme indicates, teachers will have opportunities to "Construct Knowledge, Revitalize Skills and Recharge Enthusiasm." The Conference is being held from November 2-4 in Ellenville. This mailing is being sent to over 20,000 science teachers and supervisors. The State Education Department encourages teachers to participate, so that they can bring back conference materials and ideas that will strengthen their school districts' science programs. The New York State Education Department welcomes this opportunity to join with STANYS in support of science education. We appreciate all continued efforts that raise standards and achievements in science, math, and technology. For further information, please call Jack Higham, Conference Registrar, 800-893-0348/607-748-0348.

Sincerely,

Anne Schiano

Anne Schiano

SUNDAY, November 2, 2003

10:00 a.m. - 9:00 p.m.	**Nevele Grande East Conference Registration** (for on-site registration and preregistered Nevele Grande East guests), Lobby
10:00 a.m. - 5:30 p.m.	**Nevele Grande West Conference Registration** (for preregistered Nevele Grande West guests only), Lobby
After 5:30 p.m.	All preregistered guests for the Nevele Grande West go to Nevele Grande East, Lobby
10:00 a.m.	Sargent-Welch **Golf Tournament,*** Nevele Grande West
10:00 a.m.	Carolina Biological **Tennis Tournament,*** Nevele Grande East
12:30 p.m. - 1:30 p.m.	**Session X**
1:45 p.m. - 2:45 p.m.	**Session Y**
3:00 p.m. - 4:00 p.m.	**Session Z**
3:30 p.m. - 4:25 p.m.	**Welcoming Wine Reception,** courtesy of Center for Science Teaching and Learning, Nevele Grande West, Lower Lobby by Stardust Room
4:30 p.m. - 7:00 p.m.	**General Meeting of the Membership** and **Award Ceremony,** Nevele Grande West, Stardust Room **Keynote Address,** Dr. Sam Bowser, Wadsworth Center, NYS Department of Health, "Ancient Cells – Alive!"
7:00 p.m. - 8:30 p.m.	*Awards and Officers Dinner,*** Nevele Grande West, Globe Dining Room
8:30 p.m. -11:00 p.m.	**Exhibits Open,** Nevele Grande West, Indoor Tennis Courts
9:00 p.m. -12:00 a.m.	**Star Observing,** Nevele Grande East, Golf Course, weather permitting

MONDAY, November 3, 2003

7:00 a.m. - 11:00 a.m.	**Conference Registration,** Nevele Grande East, Lobby
6:30 a.m. - 9:00 a.m.	**Breakfast**
7:00 a.m. - 9:00 a.m.	*Physics Breakfast Session,* Nevele Grande East, Fantasy Room, Session A-02. Meal ticket needed.
7:00 a.m. - 9:00 a.m.	*Biology Breakfast Session,* Nevele Grande West, Globe Dining Room, Session A-36, sponsored by Wards. Meal ticket needed.
8:00 a.m. - 9:00 a.m.	**Session A**
8:30 a.m. - 12:00 p.m.	**Exhibits Open,** Nevele Grande West, Indoor Tennis Courts
9:30 a.m. - 10:30 a.m.	**Session B**
11:00 a.m. - 12:00 p.m.	**Session C**
11:00 a.m. - 2:00 p.m.	**Solar Observing,** Nevele Grande East, Golf Course, weather permitting
12:00 p.m. - 1:15 p.m.	**Exhibits Closed**
12:00 p.m.	**Lunch** *Intermediate Level Luncheon,** Nevele Grande West, Globe Dining Room, sponsored by Holt, Rinehart & Winston. Meal ticket needed. *Science Leadership Luncheon,** Nevele Grande East, Back of Dining Room. Meal ticket needed.
1:15 p.m. - 4:00 p.m.	**Exhibits Open,** Nevele Grande West, Indoor Tennis Courts
1:45 p.m. - 2:45 p.m.	**Session D**
4:00 p.m.	**Exhibits Close** for the day
4:30 p.m. - 6:00 p.m.	**Fellows Induction Ceremony and Fellows Address,** Nevele Grande West, Stardust Room Fellows Address: Dr. Leon Lederman, Fermi National Accelerator Laboratory, "21st Century High School". Dr. Lederman's address is sponsored by Eduware Inc.
6:00 p.m. - 7:00 p.m.	**STANYS Reception,** Nevele Grande West, Lobby
6:00 p.m. - 7:00 p.m.	**Elementary Teachers Social,*** sponsored by Delta Education, Nevele Grande West, Safari Lounge
7:00 p.m.	**Dinner**
7:00 p.m.	*Fellows and Past Presidents Dinner,*** Nevele Grande West, Globe Dining Room
8:30 p.m.	**Door Prize Drawing,** Nevele Grande West, Stardust Room
10:30 p.m. - 12:00 a.m.	**Star Observing,** Nevele Grande East, Golf Course, weather permitting
10:30 p.m. - 1:00 a.m.	**Music and Dancing,** Nevele Grande West, Safari Lounge

TUESDAY, November 4, 2003

6:30 a.m. - 9:00 a.m.	**Breakfast**
7:00 a.m. - 9:00 a.m.	*Chemistry Breakfast Session,* Nevele Grande East, Fantasy Room, Session E-02. Meal ticket needed.
7:00 a.m. - 9:00 a.m.	*Earth Science Breakfast Session,* Nevele Grande West, Globe Dining Room, Session E-36, sponsored by Glencoe. Meal ticket needed.
7:30 a.m. - 10:00 a.m.	**Conference Registration,** Nevele Grande East, Lobby
8:00 a.m. - 9:00 a.m.	**Session E**
8:30 a.m. - 12:00 p.m.	**Exhibits Open,** Nevele Grande West, Indoor Tennis Courts
9:00 a.m. - 12:00 p.m.	**Solar Observing,** Nevele Grande East, Golf Course, weather permitting
9:30 a.m. - 10:30 a.m.	**Session F**
11:00 a.m. - 12:00 p.m.	**Session G**
12:00 p.m.	**Exhibits Close**
12:00 p.m.	**Lunch** *Science Honor Society Luncheon,** Nevele Grande East . Back of Dining Room. Meal ticket needed.

* Preregistration required (*you must preregister on your Registration form for these events.*) ** Invitation only

Where is the STANYS 108th Annual Conference held?

The Annual Conference is held at the Nevele Grande East (Fallsview) and Nevele Grande West (Nevele) Hotels in Ellenville, NY. In 1997, the hotels were consolidated into the Nevele Grande Hotels and Resort, Inc. ***Both hotels have undergone complete renovation of their facilities and accommodations. For a view of their accommodations visit the Nevele Grande website at www.nevele.com.*** The hotels are located about one mile south of the downtown area of Ellenville. The main entrance is from Nevele Road, which runs from Main Street in the village, south, past the hotel entrance and back to Route 209 South, a little more than one mile below the village. The proximity of them to each other makes getting from one to the other quite easy. A lighted walkway allows attendees to walk from one to the other. Since workshop sessions and large group sessions are held in both locations, and exhibits are held in the Nevele Grande West, you will likely be moving back and forth several times during the Conference. The approximate walking time is 10 minutes. For attendees needing special assistance an "on request" shuttle service is available. Contact the hotel's front desk for times and availability.

Workshop sessions numbered 1 through 15 are always in the Nevele Grande East Hotel, and workshop sessions numbered 20 through 40 are always in the Nevele Grande West. Adequate time is allowed between the sessions to easily move from one venue to the other. Both facilities are wheelchair-accessible.

What do you get for your Conference fee?

For your Conference registration fee, you can register for up to **ten** presentations or workshops of your choice. Participants are scheduled into each workshop. In this way, presenters know how many to expect. (Also, a limit may have been placed by the presenter on the number of participants in a workshop so that the presenter's and participants' needs can be more closely met.) Since you are scheduled into each workshop, it is important for you to select three workshops for each session. If one of your first choices is filled when your registration form is processed, your second, then third choices are used, respectively. We strive to make our Conference registration "ideal", meaning that all participants get their first-choice selections for each session. We have made a dramatic improvement over previous years toward meeting that goal. Despite our best efforts, however, some sessions may be canceled, or filled to capacity, and we will have to go to a participant's alternative choices.

Your Conference badge will admit you to your workshop sessions, Conference events, and the Exhibition Hall. This year Prentice Hall is sponsoring a tote bag for each participant. Look for more information about the exhibits elsewhere in the brochure.

Each year the Conference features two major speakers. The Keynote Address opens the Annual Conference and the Fellows Address follows the presentation of individuals receiving the highest honor that STANYS bestows. Look for descriptions of the speakers and the topics elsewhere in the brochure.

What do you get for your hotel fee?

Your Conference hotel fee is one of the best bargains you will find, including a comfortable room at multiple occupancy rates, gratuities, and all meals, starting Sunday night dinner through lunch on Tuesday.

Monday evening at the STANYS reception you will find an abundance of hot hors d'oeuvres and refreshing beverages.

Dining room service is Full American Plan. You will select from a varied menu for each meal. Breakfasts offer a wide variety of hot and cold choices, with most hot choices cooked to order. Lunches and dinners include soup, salad, and a variety of entrees. Finish your lunch or dinner with a selection of desserts and coffee or tea.

Both hotels have a varied selection of services and recreational facilities available to all attending the Conference.

Please note: Hotel rooms and keys are not available for occupancy until 4:00 p.m.

What choices are available for a commuter participant?

If you are a commuter participant and wish to eat a meal in the dining room, such as a special breakfast or a luncheon meeting on Monday and/or Tuesday, you can purchase a meal ticket for a meal from the respective hotel at the **hotel** registration/reservation desk. The approximate cost is $10 for breakfast, $15 for lunch, and $25 for dinner. If you are only looking for a quick bite to eat, both hotels have coffee shops where you can obtain light meals. Commuter participants are invited to the STANYS reception, Monday evening, prior to dinner.

Why must I pay a STANYS membership fee to attend this Conference?

The Annual Conference is organized and run as a service to members of STANYS, and is the official Annual Meeting of the general membership. If you are not a member when you register, you pay a higher registration fee which includes the current year's membership fee. Look elsewhere in the brochure for more information about STANYS membership categories and rates.

What tournaments are conducted at the Conference?

If you are an early arrival, you may want to try the golf or tennis tournaments which are held on Sunday before the start of the Conference. Participants in past years have enjoyed the friendly competition, have met new friends, and have even talked science while competing!

Golf Tournament - Sargent-Welch sponsors a golf tournament at the STANYS Conference for Conference registrants, and provides trophies for the winners in six categories. The tournament categories include: Lowest Gross Score (for both men and women), Closest to Hole (for both men and women), and Longest Drive (for both men and women). Trophies are awarded at the Sargent-Welch booth in the exhibit area any time during exhibit hours. There is no tournament entry fee, but you are responsible for your own greens fee. Equipment, including carts, can be rented at the Pro Shop.

If you plan to participate in the golf tournament you need to:

- Check the appropriate box in **Section 4** on the Conference registration form;
- Call the Nevele Grande golf pro prior to the tournament date at 845-647-6000, extension 561,to schedule a tee time, and to arrange for your playing partners;
- Practice, practice, practice before 10:00 a.m., Sunday, November 2, 2003

Tennis Tournament - Carolina Biological sponsors a tennis tournament at the STANYS Conference for Conference registrants, and provides trophies for the winners in eight categories. The tournament categories include: Men's and Women's Singles, Men's and Women's Doubles, and Mixed Doubles. Tournament play is round robin, based on one set per round. Trophies are awarded court side at the end of the tournament. There is no tournament entry fee. You must provide all of your own equipment, including balls. The tournament can be conducted either indoors or outdoors. If it is held outdoors, there is no cost for court time. If weather requires that play be held indoors, you ***are*** responsible for your own court fee.

If you plan to participate in the tennis tournament you need to:

- Check the appropriate box in **Section 4** on the Conference registration form;
- Call the Nevele Grande tennis pro prior to the tournament date at 845-647-6000, extension 401, to put your name on a players' list, pick partners, or register your team;
- Practice, practice, practice before 10:00 a.m., Sunday, November 2, 2003

The tennis tournament will be held at the Nevele Grande East courts.

What special events are held at the Conference?

SUNDAY - NOVEMBER 2, 2003

WELCOMING WINE RECEPTION, courtesy of Center for Science Teaching and Learning. Stop by and say hello to STANYS Officers and meet old and make new friends. Nevele Grande West, Stardust Room lobby, 3:30 - 4:25 p.m.

HOSPITALITY ROOMS, many STANYS sections hold hospitality rooms. Check the registration areas for flyers indicating times and rooms.

MONDAY - NOVEMBER 3, 2003

PHYSICS BREAKFAST SESSION, 7-9 a.m., Nevele Grande East. Preregister for Session A-02. A meal ticket is required of all attendees.

BIOLOGY BREAKFAST SESSION, 7-9 a.m., sponsored by Wards, Nevele Grande West., Preregister for Session A-36. A meal ticket is required of all attendees.

INTERMEDIATE LEVEL LUNCHEON, noon, sponsored by Holt, Rinehard & Winston, Nevele Grande West. Preregister on the Conference Registration form, section 4. A meal ticket is required of all attendees.

SCIENCE LEADERSHIP LUNCHEON, noon, presented by NYSSELA, Nevele Grande East. Preregister on the Conference Registration form, section 4. A meal ticket is required of all attendees.

ELEMENTARY TEACHERS SOCIAL, 6-7 p.m., sponsored by Delta Education, Nevele Grande West, Safari Lounge. Preregister on the Conference Registration form, section 4. Hors d'oeuvres and an open bar will be provided. This is a great opportunity for K-6 teachers, administrators, and college professors from across the state to network. Attendees are encouraged to bring multiple copies of their favorite science activity to share!

HOSPITALITY ROOMS, many STANYS sections hold hospitality rooms. Check the registration areas for flyers indicating times and rooms.

TUESDAY - NOVEMBER 4, 2003

CHEMISTRY BREAKFAST SESSION, 7-9 a.m., Nevele Grande East. Preregister for Session E-02. A meal ticket is required of all attendees.

EARTH SCIENCE BREAKFAST SESSION, 7-9 a.m., sponsored by Glencoe, Nevele Grande West. Preregister for Session E-36. A meal ticket is required of all attendees

SCIENCE HONOR SOCIETY LUNCHEON, noon, Nevele Grande East. Preregister on the Conference Registration form, section 4. Preregister on the Conference Registration form. A meal ticket is required of all attendees.

What are the categories of STANYS membership?

A requisite for your participation in the STANYS Annual Conference is that you must be a current member of the organization. Membership can be established beforehand or at the time you register. Please be aware, if you establish your membership at the time of registration you will not be able to participate in the election of STANYS officers.

In order to vote in the election you must be a member by September 15, 2003.

The STANYS membership year runs from July 1 through June 30. The expiration date on your membership card must show 2004 or greater. If a membership fee is received after April 30, it will be applied to the next membership year. The categories of membership and the duration can vary according to your situation.

The categories and one-year rates include:

- **Regular status membership** - can be held by any classroom teacher at elementary, middle/junior, high school, or college/university levels. The annual rate is $38;
- **Associate membership** - can be held by persons who are employed by museums, government agencies, businesses, and community members who share our interest of quality science education. The annual rate is $38;
- **Retired membership** - can be held by anyone with an established history of regular membership who has retired. The annual rate is $19;
- **Student (preservice) membership** - First year membership is free when the application is accompanied by a letter from a professor on institution letterhead indicating eligibility. After one year of free membership, preservice students (graduate or undergraduate) pay a discount fee of $19.00.
- **College Education Seniors** – Free, one year, one time only. Application must include a letter signed by a professor on institution letterhead indicating eligibility and mailed by the student to the STANYS Office.

A savings of $2 occurs by purchasing a two-year membership. This option is available to all categories, except student, and is intended to make STANYS membership more convenient and economical. Membership payment can now be made by check or by credit card (MasterCard or Visa).

If you cannot attend the Conference, but wish to join STANYS, simply complete and return **Section 1** of the Registration form.

What can membership in STANYS offer you?

- Networking with other professionals in your discipline for friendships and collaborations.
- Workshops in your region and at the state level.
- Updates on what is happening at the state level.
- Access to the STANYS Directors-at-Large and Subject Area Representatives
- Section meetings and updates. Each section of STANYS has meetings and activities for their members.
- Five issues each year of the STANYS newsletter.
- The Science Teachers Bulletin, containing philosophical issues, educational methodologies, and information about STANYS members. The Bulletin is published twice a year.
- Opportunities for inexpensive international travel.
- A voice in Albany. STANYS leaders will bring your concerns to the State Education Department and actively provide suggestions for in-service that will be helpful to the members.
- Information for you and your students about Science Olympiads and the State Science Congress.
- Representation through elected leadership to National Science Teachers Association.
- Legislative updates at the state and national level.
- Statewide representation through the Board of Directors where each active Section and each level and discipline of science education can meet and share opinions.
- The STANYS Employment Clearinghouse which operates from the perspective of helping potential employers find the desired employee and where the science educator can discover available openings that match his/her qualifications.
- Opportunities for recognition through its awards such as those for Outstanding Elementary, Middle, and High School Science Educator, STANYS Fellow, plus local Section awards.
- Opportunities for leadership in the organization.

Which STANYS section should I join?

STANYS Sections are organized by counties. Check carefully to determine which Section contains the county in which you reside. However, you may belong to any Section you wish.

New York City (NY)
Brooklyn
Manhattan
Queens
Staten Island

Catskill-Leatherstocking (CL)
Chenango
Delaware
Otsego

Central (CE)
Cayuga
Onondaga
Oswego

Central-Western (CW)
Livingston
Monroe
Ontario
Seneca
Wayne
Yates

Eastern (EA)
Albany
Columbia
Fulton
Greene
Hamilton
Montgomery
Rensselaer
Saratoga
Schenectady
Schoharie
Warren
Washington

Mohawk Valley (MV)
Herkimer
Madison
Oneida

Nassau (NA)
Nassau

North Central (NC)
Jefferson
Lewis
St. Lawrence

Northeastern (NE)
Clinton
Essex
Franklin

Northwestern (NW)
Genesee
Niagara
Orleans

Southeastern (SE)
Dutchess
Orange
Putnam
Rockland
Sullivan
Ulster

Southern (SO)
Broome
Chemung
Cortland
Schuyler
Steuben
Tioga
Tompkins

Southwestern (SW)
Allegany
Cattaraugus
Chautauqua

Suffolk (SU)
Suffolk

Westchester (WE)
Bronx
Westchester

Western (WR)
Erie
Wyoming

"Ancient Cells – Alive!"

KEYNOTE speaker

DR. SAM BOWSER
Wadsworth Center
NYS Department of Health, Albany

"At age six, Bowser peered thru a toy microscope at pond scum from the family farm. He's been hooked on the "micro world" ever since.

In 1979, Sam Bowser received his B.S. in Biological Sciences, and his PhD in cell biology from the University at Albany in 1984. He conducted field-work in Antarctica as a postdoctoral fellow from 1984-1986. In 1988, he was appointed Research Scientist at the Wadsworth Center, the research branch of the New York State Department of Health. In addition to his research work, Dr. Bowser has been an Associate Professor in the Department of Biomedical Sciences, School of Public Health in Albany from 5/16/96 - present. Since 1996, Dr. Bowser has been an Adjunct Associate Professor in the Department of Biomedical Engineering at Rensselaer Polytechnic Institute, Troy, NY.

Since 1990, Bowser has led numerous research expeditions to Antarctica, studying the unique biota living under 12 ft of sea ice. He has also taken part in expeditions to Spitzbergen, the California Borderland Basins, and the Gulf of Mexico where he sampled the deep sea from the research submarine Alvin. His research focuses on the biology of Foraminifera – a group of ancient, single-celled organisms that dominate many marine settings and play a major role in earth's carbon cycle. He is particularly interested in the early evolution of Foraminifera, and in finding ways to exploit their unique features for biomedicine and biotechnology. His lecture will touch on these research topics.

Dr. Bowser is one of the most popular speakers in the Greater Capital Region. He has been a keynote speaker at the Eastern Section of STANYS conference and has conducted numerous workshops for teachers in the Capital Region. He has also been invited to speak at many schools in the Capital Region. He is very committed to education and has been working with teachers to develop curriculum so that he can interact with students when he is in the Antarctica. Dr. Bowser is conducting a workshop at this conference with the goal of involving more students with his research in Antarctica.

Dr. Bowser is the author of over 55 peer-reviewed papers. He has also contributed chapters to numerous textbooks. During his career, Dr. Bowser has received a multitude of honors and awards such as the *Trager Award for Outstanding Paper* for his paper that appeared in the Journal of Eukaryotic Microbiology. In 1985 he received the Antarctica Service Medal of the United States. In both 1982 and 1983, he was an *Electron Microscopy Society of America Presidential Scholar,* while in 1982 he also received the *Sigma Xi Graduate Research Award*.

In his Keynote Address, "Ancient Cells–Alive!", Dr. Bowers, will contend that the giant agglutinated Foraminifera they collect from the icy waters of Antarctica are living fossils. The life habits of these protists give us clues about marine ecosystems before the advent of multicellular life, and how they may have shaped the evolution of modern organisms. These concepts will be discussed, together with some icy adventure tales.

"21st Century High School"

Dr. Lederman's Fellows Address is sponsored by EduWare, Inc.

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Fellows speaker

DR. LEON LEDERMAN
Fermi National Accelerator Laboratory

Leon Lederman, internationally renowned specialist in high-energy physics, is director emeritus of Fermi National Accelerator Laboratory in Batavia, Illinois, and was the Eugene Higgins Professor at Columbia University. He has been associated with Columbia as a student and faculty member for more than thirty years; he was director of Nevis Laboratories, which was the Columbia physics department center for experimental research in high-energy physics from 1961 until 1979. With colleagues and students from Nevis, he led an intensive and wide-ranging series of experiments, which provided major advances in particle physics. His publication list runs to over 300 papers. Lederman was the director of Fermi National Accelerator Laboratory from 1979 until 1989. Since 1998, he holds the position of Resident Scholar at the Illinois Mathematics and Science Academy and since 1993, Pritzker Professor of Science at the Illinois Institute of Technology in Chicago.

Lederman is a member of the National Academy of Sciences and has received numerous awards, including the National Medal of Science (1965), the Elliot Cresson Medal of the Franklin Institute (1976), the Wolf Prize in Physics (1982), and the Nobel Prize in Physics (1988). In 1993 he was awarded the Enrico Fermi Prize by President Clinton. He has served as founding member of the High Energy Physics Advisory Panel and the International Committee for Future Accelerators. Lederman has been awarded thirty-six honorary degrees including awards from institutions in England, Italy, Finland, Brazil, Mexico, Russia, China and Argentina.

Lederman has also worked tirelessly to improve science education. He was instrumental in founding the Illinois Mathematics and Science Academy (IMSA), a residential high school for the gifted, and the Teachers Academy for Math and Science (TAMS), which provides professional development for primary school teachers in Chicago. The hands-on pedagogy has been applied in France, Brazil, China and Malaysia, mainly through the agency of the Committee on Capacity Building in Science. Lederman chaired this Committee of ICSU from 1994-2000. The Lederman Science Center, a hands-on science museum, where visitors can explore the physics and technology of Fermilab, was also born as a result of his efforts. "Saturday Morning Physics" (a short-course for high school students) was initiated by Lederman in 1980. He has been an outspoken advocate for new approaches to secondary science that emphasize a coherent three-year science curriculum beginning with physics. There are a growing number of schools introducing the new curricula inspired by his advocacy.

He has been a member of College Board task forces, in Minority High Achievement (1998), and on the Future of Advanced Placement (2000). Currently, he is a member of the National Commission on the High School Senior Year.

Fellows Address: 21st Century High School

There is no sign that the worldwide explosive advances in science-based technology are abating. The next few decades of the 21st century should bring more changes in human behavior and potentialities than the ancient pre-Internet, pre-cellphone, pre-genetic engineering epoch of the late 20th century. At no time in history has science and technology been so central to modern life. Yet our populations remain largely science illiterate as testified by countless studies.

Our high schools use a 19th century science curriculum which has been endlessly fine tuned; sometimes usefully, but on the whole, is fundamentally flawed and about 50 years out of date with 20th century scientific developments.

The ARISE program proposes a 3-year standards compatible, coherent curriculum for the learning of science and mathematics. The curriculum is designed to equip all high school graduates with a "science way of thinking", essential for survival in 21st century social, economic, and political life. Key to the success of this proposal is a dramatic increase in the time for collegial professional development of teachers.

exhibits

Be sure to visit the Exhibit Hall, where you will find more than 125 booths tended by representatives from over 90 companies. In addition, there is the STANYS Store as well as the NSTA booth.

Please note that the Exhibit Hall is located in the Nevele Grande West (Nevele) indoor tennis courts.

Here under one roof, you'll have the opportunity to view the latest in: textbooks, audiovisual equipment, software, scientific equipment, microscopes, laboratory furniture, science novelties, science T-shirts, and science classroom materials. Representatives from environmental groups and centers, weather forecasting services, and scientific societies will also be on hand.

The STANYS Conference Exhibit Hall is an excellent forum to meet other interested professionals, to exchange ideas, and to form networks. We hope you will be able to take advantage of this wonderful opportunity.

STANYS store

STANYS again will sponsor, in the Exhibit Hall, the STANYS Store. On sale will be numerous items featuring the STANYS logo. Included will be golf, tee and sweatshirts, as well as baseball caps, mugs, pens and our Conference specialty the STANYS "surprise". Come visit the STANYS Store!

All proceeds from the sale of items in the STANYS Store will benefit the STANYS Foundation. The STANYS Foundation was established by the Board of Directors in May 1998, to support student activities, i.e. Science Congress, scholarships for student participation in summer institutes, etc.

Only cash or checks can be accepted at the STANYS STORE. We are unable to accept credit card charges.

star and solar observing

Dennis O'Connell • Corning Community College

STAR OBSERVING - Mr. O'Connell will provide several telescopes for viewing the stars, planets, and galaxies that can be seen from Ellenville. He will assist you in finding the stellar body you wish to observe and will discuss astronomy and telescopes with you. **Weather permitting, the observing will start at 9:00 p.m. on Sunday evening and 10:30 p.m. on Monday evening.** Look for telescopes on the far side of the Nevele Grande East (Fallsview) near the golf course. No registration is required—just come and gaze.

SOLAR OBSERVING - Mr. O'Connell will also be out, weather permitting, **on Monday from 11:00 a.m. to 2:00 p.m., and on Tuesday at various times between 9:00 a.m. and noon, depending on workshop commitments.** The safe solar observing setups will be located on the Nevele Grande East (Fallsview) patio or on the walkway between the two hotels. You can't miss the scopes. Check out the sunspots and flares. No registration is required.

"Just take a left at Mars and go down three stars..." Examining the heavens at the Nevele

3rd annual STANYS GPS challenge

Be there. Don't be square. Be triangular!

LOOKING FOR AN OUTDOOR ADVENTURE? LIKE TO SOLVE PUZZLES? TAKE TAKE THE GPS CHALLENGE!

Participating teams will use a GPS receiver to find several "letterbox" geocaches. Teams must provide their own GPS receiver. Each team will represent their home school, and schools may enter more than one team. Teams will use an entry form listing all the geocaches and latitude-longitude coordinates. Each box has a unique rubber stamp and an inkpad. Stamp your entry form to prove your team found each box. Turn in ONE completed team entry form for each team with all the required stamp images. Your team will be entered in a prize lottery.

Entry forms for the GPS Challenge will be available at the Conference Registration area in Fallsview (East) late Sunday or early Monday. Final submission deadline for team entries is 10:30 a.m. on Tuesday.

Visit these sites to learn about using GPS for science education, and to practice your skills in the geocaching game!

NYGPS – http://groups.yahoo.com/group/nygps/

Geocaching – http://www.geocaching.com/

X-01 and Y-01 and Z-01 HANDS-ON DATA COLLECTION YOUR WAY, WITH VERNIER LABPRO®

Walter Rohr, Diana Gordon, and Dan Holmquist, Vernier Software & Technology

Intermediate, High School, College: General

This is a triple workshop involving X-01, Y-01, and Z-10. Participants must register for, and attend, ALL THREE.

In this 3 HOUR hands-on workshop, we will show you how to integrate our data-collection technology into your chemistry, biology, physics, math, middle school science, physical science, and earth science curriculum. Our products can be used with computers, TI graphing calculators, and Palm OS® handhelds. You will have an opportunity to collect data on all of these platforms.

X-02 SOMETHING SPECIAL

Karen Lang, Monticello Central Schools; Laura Mihelakis, Center for Discovery, Harris, NY

Elementary: General, Elementary

This session requires a fee of $12 (the cost of take home materials).

Discover the fun of science using inexpensive toys with your class. Let your students explore how exciting science can be. Hands-on elementary level science explorations.

X-03 and Y-03 and Z-03 UNLOCK THE SECRETS OF SCIENCE

Nadine O'Shaughnessy, PASCO Scientific

All: Living Environment, Chemistry, Earth Science

This is a triple workshop session involving X-03, Y-03, and Z-03. Participants must register for, and attend, ALL THREE.

With probeware, students don't just learn science, they experience science. Learn how to use probeware in your middle school science class to help students grasp intangible phenomena such as light, sound waves, force and motion more quickly. Find out how easy it is to incorporate probeware into your current curriculum and get students started collecting data with sensors and dataloggers immediately.

X-05 pGLO BATERIAL TRANSFORMATION AND PROTEIN PURIFICATION KITS

Olga Padilla and Rachel Von Roeschlaub, Bio-Rad Laboratories

Intermediate, High School, College: General, Research

Have you ever seen a gene at work? Now you can. Integral to new standards for life science education is understanding how foreign DNA can be inserted into cells to alter their genetic makeup, encode the expression of new proteins, and produce novel biomedical and agricultural products. In this activity, your students will explore genetic engineering and the creation of genetically modified organisms and apply real-world biotechnology processes and principles in the classroom! Students will transform bacteria with a gene from a bioluminescent jellyfish. The flow of new genetic information from DNA to RNA to protein to trait results in the expression of Green Fluorescent Protein (GFP), which causes the bacteria to glow fluorescent green under UV light - just like the jellyfish. Then your students use column chromatography to purify the jellyfish protein from the transformed bacteria. The ultimate oooh, ahhh lab experiencedî

X-07 SCIENCE RESEARCH IN HS: FLIES, WORMS AND BEARS - OH MY!

Beverly Clendening, Hofstra University; Richard Kurtz, South Side High School

High School: Living Environment, Environmental Science, Research

We will demonstrate how fruitflies, black worms and tardigrades can be used to develop introductory-level research projects that can be carried out in the HS laboratory.

X-08 and Y-08 and Z-08 DELIGHTFUL DISCUSSIONS DEVOTED TO D

Glenn Dolphin, DAL - Earth Science, Union-Endicott High School; Earth Science SARs

High School: Earth Science

This is a triple workshop session involving X-08, Y-08, and Z-08. Participants must register for, and attend, ALL THREE.

Don't dilly dally. Drive down a dearth of didactic discourses dynamically deployed to delineate discernment of D doctrine.

X-09 and Y-09 and Z-09 INTERMEDIATE LEVEL SAR SUNDAY SHOWCASE

Polly Lotito, Union-Endicott Central Schools

Intermediate: General

This is a triple workshop session involving X-09, Y-09, and Z-09. Participants must register for, and attend, ALL THREE.

Immerse yourself in an afternoon of topics relating to the Intermediate Level Science Core. Inquiry lessons, demonstrations, handouts and more!

X-10 and Y-10 and Z-10 CHEMISTRY SARS PRESENT

Dolores Miller, DAL - Chemistry, Alden High School, retired; Chemistry SARs

High School: Chemistry

This is a triple workshop session involving X-10, Y-10, and Z-10. Participants must register for, and attend, ALL THREE.

The chemistry SARS will present a variety of labs, demos and activities that you can take back to your classroom for immediate use.

Key to Reading Workshop Session Descriptions

This same format is used in the conference program.

The key below indicates the information you will find in each of the workshop session descriptions that appear on pages 15-33. Use this information and the Workshop Cross Reference List (pages 34-36) to guide your review of the workshop choices as you make your selections and complete your registration form.

SESSION-NUMBER (Letter = Session; Number = Room)
PRESENTATION TITLE

Presenter's Name; Presenter's Affiliation/Sponsor (Multiple presenters will be listed.)

Subject Area: Intended Audience or Level

Presentation Description (Look for special information such as extended times and/or multiple sessions.)

Session X-01 to X-15 (continued)

X-11 and Y-11 and Z-11 MAKE AND TAKE ELEMENTARY SCIENCE ACTIVITIES

Mary Jean Syrek, DAL - Elementary; Elementary SARs

Elementary: Elementary

This is a triple workshop session involving X-11, Y-11, and Z-11. Participants must register for, and attend, ALL THREE.

Classroom activities for elementary sicence, assessment updates; computer games and handouts will be available as you travel table to table and teacher to teacher in this personal encounter with the subject area representatives in elementary science from across NYS. This workshop is sponsored by Eduware Inc.

X-12 GRAPHICAL FORECAST PREPARATION TECHNIQUES

Richard Westergard, National Weather Service

High School, College: Earth Science, Environmental Science, Physics

A demonstration of the process used to prepare a weather forecast with the Graphical Forecast Editor.

X-13 PHYSICS SUNDAY SHOWCASE, SESSION X USING ASSESSMENTS AS TOOLS FOR IMPROVING INSTRUCTION

Joseph Zawicki, Dan MacIsaac, and Kathleen Falconer, Buffalo State College; Robert Stewart, Sullivan County Community College

High School, College: Physics

Tools for analyzing and reviewing assessments and a performance task in EM will be presented. The creation of a network for Regents exam review will be discussed.

X-14 HELP, HOW CAN I TEACH SCIENCE WITH EVERYTHING I HAVE TO DO?

Linda Gillentine, Independent Consultant, Science Companion

Elementary: Elementary

This session will provide ways science can be integrated into an elementary curriculum by working with a flexible discovery based science model. Practical ideas will be presented that a teacher can put to use.

X-15 or Y-15 or Z-15 FLIGHT AND FLIGHT ROG

Jessie Aronstein, New York State Science Olympiad

Intermediate, High School: MST

This is a repeat workshop involving X-15, Y-15, and Z-15. Register for only ONE.

This is a continuous workshop during which the presenters will work with coaches to improve the design and flight time of their airplanes. Participants will be able to fly planes they bring with them.

Session X-21 to X-37 • Nevele Grande West Sun. 12:30-1:30 p.m.

X-21 and Y-21 and Z-21 THE FOUR REQUIRED LIVING ENVIRONMENT LABS

Alan Seidman, DAL - Biology, Margaretville Central School; Biology SARs

High School: Living Environment

This is a triple workshop session involving X-21, Y-21, and Z-21. Participants must register for, and attend, ALL THREE.

Living Environment teachers should run through each of the four required labs (Beaks of Finches; Diffusion Through A Membrane; Making Connections; and Relationships and Biodiversity) before using them in your classroom. SARS will take you through each lab, identify key ideas, and share ideas for materials preparation. Each of these four labs will also be offered separately during the conference.

X-23 OH, THE PLACES YOU CAN GO WITH SCIENCE AND LITERATURE

Cynthia Fatiga, Oswego High School; Lucia Cataldo, Media Specialist - Oswego High School

All: Earth Science

In a lively demonstration we will share two literature projects used for Honors and Regents level Earth Science. One uses children's literature; the other science fiction, fiction or non-fiction science books.

X-24 ACTION RESEARCH FOR NEW YORK SCIENCE TEACHERS

Kim Bilica, SUNY at Buffalo - Dept. of Learning & Instruction; John Tillotson, Syracuse University; Pamela Fraser-Abder, New York University

All, College: Research, Supervision/ Administration, College

Action research is a powerful mechanism for teachers to reflect upon their own practice and to make susbstantive, data-informed decisions about teaching and learning. This session will focus upon the ways that science education faculty across New York State are inspiring teachers to use action research to think critically about their practice.

X-26 HOW TO PREPARE FOR THE EXPERIMENTAL DESIGN EVENT

Matthew Miller and Scott Holdren, New York State Science Olympiad

Intermediate, High School: General

A discussion of the 2004 Rules and rubric. Suggestions on how to prepare your students writing skills to meet the requirements of the rubric.

X-27 and Y-27 MEASURING BEHAVIOR

Mike Darwin Yerky, PhD, CIBT, Cornell University

High School, College: Living Environment, Research

This is a double workshop session involving X-27 and Y-27. Participants must register for, and attend, BOTH workshops.

An introduction to the methods and design of behavioral studies. Hands-on work with video clips of chimpanzees using scoring sheets. (Lab available on CD-ROM from CIBT)

X-28 HOW TO PREPARE FOR THE TOWER BUILDING EVENT

Nigel Pratt, New York State Science Olympiad

Intermediate, High School: Technology

A discussion of the rules of the event for the 2004 year. Suggestion on construction of the tower.

X-29 and Y-29 NYSUT MIDDLE SCHOOL INQUIRY ACTIVITIES AND SED UPDATES

Lance Rudiger, Potsdam; Elizabeth Scheffer, NYSUT

Intermediate: General

This is a double workshop session involving X-29 and Y-29. Participants must register for, and attend, BOTH workshops.

The workshop is an inquiry based format for middle school science teachers in which successful models and strategies are showcased. Also, a reference quantity of material from SED and NYSUT will be distributed.

X-33 HANDS-ON-PLASTICS: A FREE MODULE FROM AMERICAN PLASTICS COUNCIL

Claudia Toback, NMLSTA/APC

Intermediate, High School: Chemistry

Forensics is the newest buzzword for motivating students in science. Find out how you challenge your students to identify plastic materials and receive the free module from the American Plastics Council. It's fun and easy... and quality science.

X-37 HOW TO PREPARE FOR THE PICTURE THIS EVENT

Patricia Sherman, New York State Science Olympiad

Intermediate, High School: General

A discussion of the rules for the 2004 event. Suggestions on how to prepare your student's reasoning and drawing skills.

Y-01 and X-01 and Z-01 HANDS-ON DATA COLLECTION YOUR WAY, WITH VERNIER LABPRO®

Walter Rohr, Diana Gordon, and Dan Holmquist, Vernier Software & Technology

Intermediate, High School, College: General

This is a triple workshop involving X-01, Y-01, and Z-10. Participants must register for, and attend, ALL THREE.

In this 3 HOUR hands-on workshop, we will show you how to integrate our data-collection technology into your chemistry, biology, physics, math, middle school science, physical science, and earth science curriculum. Our products can be used with computers, TI graphing calculators, and Palm OS® handhelds. You will have an opportunity to collect data on all of these platforms.

Y-02 MST UNDER THE WATER OF LAKE ONTARIO

Peter E. Robson, Monroe #1 BOCES

All: General

The BUBL Project is a state-of-the-art learning facility that incorporates virtual reality with real-world science and technology standards. Middle School students utilize long distance learning and video conferencing.

Y-03 and X-03 and Z-03 UNLOCK THE SECRETS OF SCIENCE

Nadine O'Shaughnessy, PASCO Scientific

All: Living Environment, Chemistry, Earth Science

This is a triple workshop session involving X-03, Y-03, and Z-03. Participants must register for, and attend, ALL THREE.

With probeware, students don't just learn science, they experience science. Learn how to use probeware in your middle school science class to help students grasp intangible phenomena such as light, sound waves, force and motion more quickly. Find out how easy it is to incorporate probeware into your current curriculum and get students started collecting data with sensors and dataloggers immediately.

Y-05 GENES IN A BOTTLE KIT

Rachel Von Roeschlaub, Bio-Rad Laboratories

Intermediate, High School: Living Environment

Capture your unique essence. Extract and bottle your own DNA! Don't clone around. Introduce your students to molecular biology... with their own DNA! In this amazingly simple and effective activity, your students will extract genomic DNA from their own cheek cells and watch it precipitate from solution as white strands. This is a real-world laboratory procedure that is used to extract DNA from many different organisms for a variety of applications. The mass of DNA strands is easily collected and transferred to a glass vial, and the vial is fashioned into a really cool necklace! Seeing is believing.

Y-06 ALTERNATIVE ROUTES TO CERTIFICATION FOR TEACHING SCIENCE

Mike Jabot, SUNY Fredonia; Tom O'Brien, Binghamton University; David Henry, Buffalo State College

College: Research, Supervision/ Administration, College

As the New York State Education Department revises the requirements for initial certification in the sciences, teacher preparation programs will be faced with some interesting challenges. This session will have a panel discussion of how some teacher preparation programs are meeting these challenges.

Y-07 SETTING UP A FORENSIC SCIENCE PROGRAM IN THE HIGH SCHOOL SETTING

Mikki Bieber, Newburgh Free Academy

High School, Supervisory: Supervision/ Administration, Forensic

CSI can be a fantastic way to integrate the layer-cake science approach into a realistic adventure for students. But, where does one begin?

Y-08 and X-08 and Z-08 DELIGHTFUL DISCUSSIONS DEVOTED TO D

Glenn Dolphin, DAL - Earth Science, Union-Endicott High School; Earth Science SARs

High School: Earth Science

This is a triple workshop session involving X-08, Y-08, and Z-08. Participants must register for, and attend, ALL THREE.

Don't dilly dally. Drive down a dearth of didactic discourses dynamically deployed to delineate discernment of D doctrine.

Y-09 and X-09 and Z-09 INTERMEDIATE LEVEL SAR SUNDAY SHOWCASE

Polly Lotito, Union-Endicott Central Schools

Intermediate: General

This is a triple workshop session involving X-09, Y-09, and Z-09. Participants must register for, and attend, ALL THREE.

Immerse yourself in an afternoon of topics relating to the Intermediate Level Science Core. Inquiry lessons, demonstrations, handouts, and more!

Y-10 and X-10 and Z-10 CHEMISTRY SARS PRESENT

Dolores Miller, DAL - Chemistry, Alden High School, retired; Chemistry SARs

High School: Chemistry

This is a triple workshop session involving X-10, Y-10, and Z-10. Participants must register for, and attend, ALL THREE.

The chemistry SARS will present a variety of labs, demos and activities that you can take back to your classroom for immediate use.

Y-11 and X-11 and Z-11 MAKE AND TAKE ELEMENTARY SCIENCE ACTIVITIES

Mary Jean Syrek, DAL - Elementary; Elementary SARs

Elementary: Elementary

This is a triple workshop session involving X-11, Y-11, and Z-11. Participants must register for, and attend, ALL THREE.

Classroom activities for elementary sicence, assessment updates; computer games and handouts will be available as you travel table to table and teacher to teacher in this personal encounter with the subject area representatives in elementary science from across NYS. This workshop is sponsored by Eduware Inc.

Y-12 ELEMENTARY STUDENTS IDEAS ABOUT THE PATH OF ELECTRICITY

David Henry, Buffalo State College

Elementary, Intermediate, College: Elementary, MST, Physics, Research

We will present interesting elementary students' thinking about how electricity flows in simple circuits.

Y-13 PHYSICS SUNDAY SHOWCASE—NATURE OF LIGHT: SIMPLE DEMOS: DC CIRCUITS

Joseph Zawicki, Buffalo State College; Joan Taber, Vernon-Verona-Sherrill High School ; Bruce Peffley, Corning-Painted Post Schools ; Robert Stewart, Southeastern SAR

High School, College: Physics

Presentation 1: Use of Phosphorescence in modeling the wave-particle nature of light. Presentation 2: Simple demos to introduce topics. Presentation 3: Student involvement in learning D Circuits at home or in the lab.

Y-14 FUNDING OPPORTUNITIES FOR SCIENCE EDUCATION

Rodney Doran, University of Buffalo; Audrey Champagne, University at Albany; Tom Liao, Stony Brook; Xiufeng Liu, University at Buffalo

All, College: Research, College

Several panelists, with experience in writing and managing grants, will share descriptions and recommendations about several funding agencies and programs.

Y-15 or X-15 or Z-15 FLIGHT AND FLIGHT ROG

Jessie Aronstein, New York State Science Olympiad

Intermediate, High School: MST

This is a repeat workshop involving X-15, Y-15, and Z-15. Register for only ONE.

This is a continuous workshop during which the presenters will work with coaches to improve the design and flight time of their airplanes. Participants will be able to fly planes they bring with them.

Mom Rose Cigna congratulates Angela Lukaszewski STANYS 2002 Service Award recipient.

Session Y-21 to Y-37 • Nevele Grande West Sunday 1:45 - 2:45 p.m.

Y-21 and X-21 and Z-21 THE FOUR REQUIRED LIVING ENVIRONMENT LABS

Alan Seidman, DAL - Biology, Margaretville Central School; Biology SARs

High School: Living Environment

This is a triple workshop session involving X-21, Y-21, and Z-21. Participants must register for, and attend, ALL THREE.

Living Environment teachers should run through each of the four required labs (Beaks of Finches; Diffusion Through A Membrane; Making Connections; and Relationships and Biodiversity) before using them in your classroom. SARS will take you through each lab, identify key ideas, and share ideas for materials preparation. Each of these four labs will also be offered separately during the conference.

Y-23 and Z-23 PHYSICS MEETS MOLECULAR BIOLOGY

Dr. Monica Plisch, Center for Nanoscale Systems, Cornell University

High School: Living Environment, Physics

This is a double workshop session involving Y-23 and Z-23. Participants must register for, and attend, BOTH workshops.

Learn how physics tools have aided molecular biologists in decoding the structure of biological molecules such as DNA. First of two sessions before Nanotechnology: Molecular Imaging. Handouts.

Y-24 EVOLUTION IN THE SCIENCE CLASSROOM: THE CHALLENGE AND CONTROVERSY

Kim Bilica, SUNY at Buffalo - Dept. of Learning & Inst.

Intermediate, High School, College, Supervisory: General, Living Environment, Research

This session will address biological evolution, intelligent design, and ways that educators can be critical consumers of the highly political challenge to evolution education.

Y-26 HOW TO PREPARE FOR ROBO BILLIARDS

Matthew Miller and Scott Holdren, New York State Science Olympiad

Intermediate, High School: Technology

A discussion of the 2004 Rules. Suggestions on the construction of your robot and control system.

Y-27 and X-27 MEASURING BEHAVIOR

Mike Darwin Yerky, PhD, CIBT, Cornell University

High School, College: Living Environment, Research

This is a double workshop session involving X-27 and Y-27. Participants must register for, and attend, BOTH workshops.

An introduction to the methods and design of behavioral studies. Hands-on work with video clips of chimpanzees using scoring sheets. (Lab available on CD-ROM from CIBT)

Y-28 HOW TO PREPARE FOR THE POLYMER DETECTIVE EVENT

Sally Mitchell, New York State Science Olympiad

Intermediate, High School: Chemistry

A discussion of the 2004 rules. Information of how to prepare and organize your search scheme.

Y-29 and X-29 NYSUT MIDDLE SCHOOL INQUIRY ACTIVITIES AND SED UPDATES

Lance Rudiger, Potsdam; Elizabeth Scheffer, NYSUT

Intermediate: General

This is a double workshop session involving X-29 and Y-29. Participants must register for, and attend, BOTH workshops.

The workshop is an inquiry based format for middle school science teachers in which successful models and strategies are showcased. Also, a reference quantity of material from SED and NYSUT will be distributed.

Y-32 HOW TO PREPARE FOR THE ROAD SCHOLAR EVENT

Brendan Herlihy, New York State Science Olympiad

Intermediate, High School: Earth Science

A discussion of the rules and requirements for the 2004 event. Suggestions on activities to prepare your students for the event.

Y-33 THE NATIONAL SCIENCE EDUCATION INQUIRY STANDARD IN THE INTERMEDIATE CLASSROOM

Kathaleen Burke, Lab-aids

Intermediate: General, Living Environment

Participants will receive kits and conduct a hands-on, minds-on activity that models all the skills students need to meet the NSE Inquiry Standard.

Y-34 ACTIVE CHEMISTRY/ ACTIVE PHYSICS: PHYSICAL SCIENCE CURRICULUM

Sal Marottoli, It's About Time, Inc.

High School: Chemistry, Physics

Active Chemistry and Active Physics was developed under the direction of Arthur Eisenkraft, Project Director of Active Physics and the past president of NSTA. Combined they make an exemplary activity and inquiry-based program that challenges students to think critically and develop problem-solving skills. The Active Physics/Active Chemistry approach embraces the concept that all students can have success in the sciences.

Y-37 HOW TO PREPARE FOR THE SOUND OF MUSIC EVENT

Patricia Sherman, New York State Science Olympiad

Intermediate, High School: General

The National Event Supervisor will hold a discussion of the rules for 2004. Insights on construction and presentation will be given.

Z-01 and X-01 and Y-01 HANDS-ON DATA COLLECTION YOUR WAY, WITH VERNIER LABPRO®

Walter Rohr, Diana Gordon, and Dan Holmquist, Vernier Software & Technology

Intermediate, High School, College: General

This is a triple workshop involving X-01, Y-01, and Z-10. Participants must register for, and attend, ALL THREE.

In this 3 HOUR hands-on workshop, we will show you how to integrate our data-collection technology into your chemistry, biology, physics, math, middle school science, physical science, and earth science curriculum. Our products can be used with computers, TI graphing calculators, and Palm OS® handhelds. You will have an opportunity to collect data on all of these platforms.

Z-02 MOTIVATE STUDENTS AND INCREASE LEARNING WITH THIS REVOLUTIONARY INTERACTIVE RESPONSE SYSTEM!

Ray Beamish, Qwizdom, Inc.

All: General

Engage every student, measure performance, and provide instant feedback and grading with Qwizdom's K-12 software and wireless Interactive Learning System. FREE CD for all attendees!

Z-03 and X-03 and Y-03 UNLOCK THE SECRETS OF SCIENCE

Nadine O'Shaughnessy, PASCO Scientific

All: Living Environment, Chemistry, Earth Science

This is a triple workshop session involving X-03, Y-03, and Z-03. Participants must register for, and attend, ALL THREE.

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Z-05 DNA FINGERPRINTING KIT

Rachel Von Roeschlaub, Bio-Rad Laboratories

High School, College: Living Environment, Chemistry

Who done it? Who am I? Are you my mother? The biotechnology of modern forensics can answer these questions. Understanding real-world applications of electrophoresis and restriction analysis of DNA are integral to the new national content standards for life science education. With this kit, your students will use restriction enzymes to digest six DNA samples, and electophoresis to separate and visualize the resulting DNA fragments. They will learn how and why restriction enzymes are used to cleave DNA, and how these fundamental techniques are used in biotechnology to generate DNA fingerprints and to construct recombinant DNA molecules.

Z-06 IN ELEMENTARY SCHOOL SCIENCE YOU DON'T TEACH KITS

Dr. Mitch Batoff, President-elect NJSTA (2003-2004)

All, Elementary, Intermediate, Supervisory: Elementary, Supervision/Adminstration

An attempt to develop some clear thinking with regard to kits that accompany exemplary elementary science curriculum projects such as STC, FOSS, Insights, GEMS, AIMS, and ESP.

Z-07 A LITTLE EXERCISE PHYSIOLOGY, ANYONE?

Kathy Hoppe (Goodwin), BOCES #2

High School: Living Environment

Participants wil perform a graded exercise test and collect data including heart rate and blood pressure. Data analysis is performed using Excel. Participants should dress appropriately (sneakers, comfortable clothing).

Z-08 and X-08 and Y-08 DELIGHTFUL DISCUSSIONS DEVOTED TO D

Glenn Dolphin, DAL - Earth Science, Union-Endicott High School; Earth Science SARs

High School: Earth Science

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Polly Lotito, Union-Endicott Central Schools

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Elementary: Elementary

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Z-12 ENGAGING STUDENTS IN NASA'S SUN-EARTH CONNECTION

Steele Hill, NASA; Carolyn Ng, NASA Sun-Earth Connection Education Forum

K-12: Earth Science

Excite students with sunspots, flares, storms and Venus transit from NASA. Resources for elementary, middle, and high school distributed. Demonstrations of hands-on activities given.

Z-13 PHYSICS SUNDAY SHOWCASE SESSION Z USING VIDEO IN THE SCIENCE CLASSROOM

Joseph Zawicki, Buffalo State College; Ed McDaniels, Massapequa High School; William Leacock, Nassau SAR

High School, College: Physics

Learn how to use scanned images, digital cameras, live video feeds and add visual elements to your presentation.

Z-14 NUTRITION UPDATE

Daniel Wulff, Dept. of Biology - University at Albany

All: General

I will describe new work on biological mechanisms of hunger, and relate this to effective weight control.

Z-15 or X-15 or Y-15 FLIGHT AND FLIGHT ROG

Jessie Aronstein, New York State Science Olympiad

Intermediate, High School: MST

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Z-21 and X-21 and Y-21 THE FOUR REQUIRED LIVING ENVIRONMENT LABS

Alan Seidman, DAL - Biology, Margaretville Central School; Biology SARs

High School: Living Environment

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Living Environment teachers should run through each of the four required labs (Beaks of Finches; Diffusion Through A Membrane; Making Connections; and Relationships and Biodiversity) before using them in your classroom. SARS will take you through each lab, identify key ideas, and share ideas for materials preparation. Each of these four labs will also be offered separately during the conference.

Z-23 and Y-23 NANOTECHNOLOGY: MOLECULAR IMAGING

George Wolfe, Wilson Magnet High School; Dr. Monica Plisch, Center for Nanoscale Systems, Cornell University

High School: Living Environment, Physics

This is a double workshop session involving Y-23 and Z-23. Participants must register for, and attend, BOTH workshops.

Students learn how an atomic force microscope works while trying to stump each other with a molecular design competition. Second of two sessions after Physics Meets Molecular Biology. Handouts.

Z-24 HOW TO PREPARE FOR STORM THE CASTLE

Bruce Weigand, New York State Science Olympiad

Intermediate, High School: MST

A discussion of the rules and instruction on how to construct the launching device.

Z-26 ROBOT RAMBLE

James Boyd, New York State Science Olympiad

Intermediate, High School: Technology

A discussion of the rules for the 2004 year. Suggestions on the construction of the robot and the control devices.

Z-27 FOUNDATION SUPPORTING FISHER-JEFFERSON PARTNERSHIP

Sheila Brady Root, St. John Fisher College

Intermediate, College: MST, Supervision/ Administration

Funding opportunities in Science Education for establishment of computer laboratory to provide technologies for students and teachers. Integration of scienctific concepts through hands-on experimentation and use of computers as a resource and a learning tool.

Z-28 HOW TO PREPARE FOR THE CAN'T JUDGE A POWDER EVENT

Sally Mitchell, New York State Science Olympiad

Intermediate, High School: Chemistry

A discussion of the 2004 rules. A discussion on how to organize your search scheme and prepare for the written portion of the event.

Z-29 KINDERSCI TECHNOLOGY INTEGRATION PROJECT FOR PRIMARY LEVEL SCIENCE

Michael Doyle and Jennifer Sorochin, Cattaraugus Allegany BOCES

Elementary: General, Elementary, MST

KinderSci Technology Integration Project includes an Access NYS validated program, providing primary level science curriculum integrating software and CA+BOCES science kits to meet NYS Standards.

Z-32 HOW TO PREPARE FOR THE FROM A DISTANCE EVENT

Brendan Herlihy, New York State Science Olympiad

Intermediate, High School: Earth Science

A discussion of the rules and materials for the 2004 event. Where and how to obtain materials to use in preparing your students.

Z-33 SCIENCE LITERACY AND LANGUAGE LITERACY — A TWO-WAY STREET

Kathaleen Burke, Lab-aids

Intermediate: General, Chemistry

Participants will receive kits and conduct a hand-on, mind-on activity that models effective language literacy strategies that promote science understandings.

Z-34 EARTHCOMM AND INVESTIGATING EARTH SYSTEMS: INQUIRY-BASED CURRICULA FOR HIGH SCHOOL AND MIDDLE SCHOOL

Ed Monk, It's About Time, Inc.

Intermediate, High School: Earth Science, Environmental Science

Abstract: scientists learn by investigating. The more they inquire the more they learn. It has been proven by research that you can expect the same results from high school and middle school students. The leading educators who developed the National Science Education Standards recognized this and that's why the American Geological Institute created the inquiry-based EarthComm curriculum for high school and the Investigating Earth Systems curriculum for middle school. During this presentation, participants will be introduced to both curricula and work through an activity from one of the inquiry-based Earth Science modules.

Z-37 HOW TO PREPARE FOR THE BOTTLE ROCKET EVENT

Nigel Pratt, New York State Science Olympiad

Intermediate, High School: Technology

A discussion of the rules for the 2004 year. Suggestion on consruction and design of the rocket.

Our Exhibits are in the very capable hands of Angela, Alice and Ron.

What registrant data is required on the Hotel Reservation Form?

SECTION 1

EACH person attending must complete the form. Appropriate information that will enable the hotel to contact you is requested. Also requested are your dates of arrival and departure. For full Conference attendees these dates would be November 2 through November 4, 2003. The rate schedule does not apply to any dates outside this range. You are asked to provide the name(s) of the person(s) with whom you will share the room. This is vital information so that duplication of bookings can be avoided. If you choose to have the hotel assign a roommate(s) to you, neither STANYS nor the hotels assume any responsibility for the roommate(s) you are assigned. It is strongly advisable to contact the person(s) prior to the Conference to establish communication.

SECTION 2

Accommodation offerings and the respective rates are indicated. While rates are offered for multiple and single occupancy, you can take advantage of substantial savings by selecting multiple occupancy and sharing the room with another. This savings is available as an incentive to use the multiple occupancy choice, helping to assure that the hotel room capacity accommodates the maximum number of persons. Please note that triple and quad rooms are subject to room availability. Visit the hotel website http://www.nevele.com/ or call 800-647-6000, for further information regarding hotel facilities and accommodations. Major renovations have been completed in both hotels.

What payment is required for the hotel room?

SECTION 3

You must accompany your reservation with a deposit payment of $50 for each person. You can choose to pay your hotel reservation deposit (and your hotel bill) by credit card or by check. Mail the deposit payment directly to the hotel at the address shown on the form. NOTE: Your room will be held until 6:00 p.m. on the day of arrival. **YOUR ROOM IS NOT GUARANTEED AFTER 6:00 p.m. If you are planning to arrive later than 6:00 p.m., you must inform the hotel prior to that time.**

What information goes in the tax exemption part of the form?

SECTION 4

Your tax exempt status. If you are employed by a State agency, which includes public schools, and that agency is paying the costs of your hotel accommodations, you can claim a tax exemption for them. The information you provide includes: nature of transactions (food and lodging); dates of transactions (the Conference dates, November 2 - November 4, 2003); State dept. or agency or political subdivision (the name of your school/agency). Include your signature and title, such as teacher.

Where do I obtain help if there is any part of the registration/reservation process I do not understand?

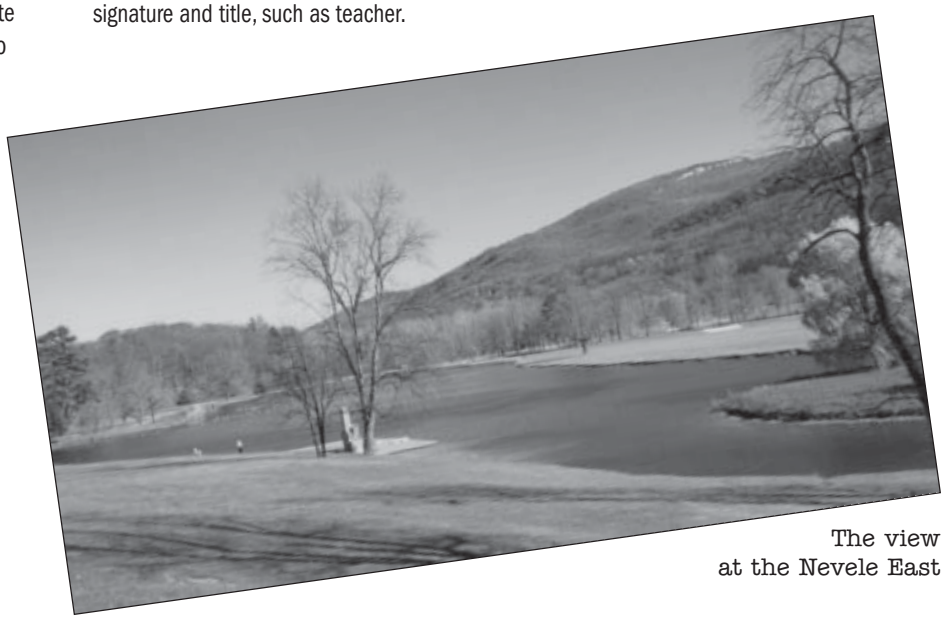
Call Jack Higham, 800-893-0348/607-748-0348, for help

For additional hotel reservation and conference registration forms check the STANYS web site:

www.stanys.org

For current Hotel Information visit the hotel web site:

www.nevele.com



The view at the Nevele East

Hotel Reservation Form

STANYS 108th Annual Conference • Sunday, November 2 - Tuesday, November 4, 2003

1. **REGISTRANT'S DATA:** Each person must complete a separate reservation form. Duplicate the form as needed for other registrants with whom you plan to share accommodations. Please print all information required below. This form applies to either hotel.

Your Name			School/Company	
Address			Phone: Home ( )	
City	State	Zip	Phone: Work ( )	
Email			Arrival Date	Departure Date

SHARING ACCOMMODATIONS WITH: (Check all that apply)

❑ Spouse ❑ Roommate(s) ❑ Children ❑ Prefer Single Accommodations

Name(s) of person(s) with whom you are sharing accommodations:

PLEASE ASSIGN A ROOMMATE: (STANYS/Nevele Grande Hotels are not responsible for assigned roommates.)

❑ Male ❑ Female ❑ Smoker ❑ Nonsmoker

2. **HOTEL ACCOMMODATIONS:** The rates below are based on a minimum two-night stay. The Full American Plan runs from after lunch on the day of arrival to after lunch on the day of departure, and includes gratuities for dining room waiter, busboys and chambermaids. (Bellmen are not included.) ***There is an additional charge of $15.00 per person per room for a one-night reservation.*** To accommodate the maximum number of persons in the hotels, we respectfully request that you consider multiple occupancies. Please check your choice for hotel accommodations and occupancy rate below.

Call hotel for room details 1-800-647-6000.

	OCCUPANCY RATES / PERSON / DAY			
HOTEL - TYPE OF ROOM	**DOUBLE**	**TRIPLE**	**QUAD**	**SINGLE**
Nevele West - Empire (Full Conference Stay Required)	$148 ❑	$130 ❑	$130 ❑	N/A
Nevele West - Colonnades	$133 ❑	$120 ❑	$120 ❑	$170 ❑
Nevele West - Tower	$128 ❑	$116 ❑	$116 ❑	$164 ❑
Nevele West - Golden Gate & Vacationer	$118 ❑	$110 ❑	$110 ❑	$154 ❑
Nevele East - Executive (Full Conference Stay Required)	$133 ❑	$120 ❑	$120 ❑	$170 ❑
Nevele East - Standard	$128 ❑	$116 ❑	$116 ❑	$164 ❑
Children under 10 sharing room with parents	$44 ❑			
Children 10 or over sharing room with parents	$85 ❑			

- Rooms and keys will be available on Sunday after 4:00 p.m. Earlier arrivals are welcome to use the hotel's facilities.
- Rooms will be held until 6:00 p.m. on day of arrival. YOUR ROOM IS NOT GUARANTEED AFTER 6:00 P.M. If you are planning to arrive later than 6:00 p.m., you must inform the hotel prior to that time. Nevele Grande Hotel: 1-800-647-6000.
- Please note: You may pay by check, cash or credit card.
- Reservations can be faxed to the hotels. No reservations are taken by phone. **Rooms are on a first come, first served basis.**

3. **PAYMENT:** A deposit of $50.00 per person is required prior to October 10, 2003. Reservation requests, with a U.S. Post Office cancellation mark, dated after October 10 are subject to room availability. Reservations received on or before this date will be acknowledged by your hotel. Deposits will be returned if your hotel is notified of your cancellation at least 48 hours prior to your arrival.

❑ Paying deposit by credit card. Please indicate your credit card:

❑ Visa ❑ Master Card ❑ AMEX

Cardholder's Name	Card Expiration Date
Card Number	Cardholder's Signature

Fax reservation must have complete credit card information. Nevele Grande Hotels, fax 845-647-9884

❑ Paying deposit by check. Please enclose a check for $50 made payable to the hotel.

MAIL THIS FORM WITH DEPOSIT TO: Nevele Grande Hotels, Ellenville, New York 12428

4. **TAX EXEMPTION:** If you are tax exempt, please complete the tax exemption form below. Guests who are not tax exempt are subject to applicable sales tax.

Tax Exempt Certificate (To be retained by the vendor as evidence of exempt sale.)	Today's Date
NEVELE GRANDE HOTELS	**ELLENVILLE, NEW YORK 12428**

This is to certify that I am an employee of the State of New York or one of its political subdivisions; that the service or material purchased on the date set forth below will be paid by the state or a political subdivision; and that such charges are incurred in the performance of my official duties.

Nature of Transactions Lodging and Meals	
Dates of Transactions	Employee's Signature
State Dept. Agency or Political Subdivision	Employee's Title

Who must register for the Conference?

- **Each person** who plans to attend Conference workshops and/or visit the exhibits **must** complete a Conference Registration Form.
- If you plan to attend Conference workshops and/or visit the exhibits and stay in a hotel you **must** complete **both** a Conference Registration Form and a Hotel Reservation Form.
- If a spouse or child attending the conference with you does **not** plan to attend workshops and/or visit exhibits, there is **no** registration fee, **They must however, complete a Conference Registration Form separate from yours.**
- **PLEASE read and complete the necessary forms carefully.**

What registrant information do I need to put on the Conference Registration Form?

SECTION 1

- **STANYS ID number**. This 4-digit number appears on your membership card or on the brochure's mailing label, if your brochure was mailed to your home address. If you cannot find your number, or are just joining STANYS for the first time, we will attach your number for you;
- **Membership status**. The mailing label contains the date of your membership expiration. If no date is on the label, you are not currently a member of STANYS. In this case select New. If your membership expiration date is June 30 2003 or lower, your membership has expired. In this case select Renew. If your membership expiration is June 30, 2004 or higher, select Current.
- **Personal information**; correct name; home address, and school/work address; The name of your school or work affiliation; Your correct home and work telephone numbers; Your complete current email address; (N.B. Your name, school or work affiliation, school/work city and state will appear on your name badge. Please be sure the wording is exactly as you want it to appear.)
- **STANYS section** to which you belong or with which you wish to be affiliated. You can find the list of sections on page 6;
- **Category of STANYS membership** in which you wish to be enrolled;
- **Specific subject** you teach or your position of responsibility. You should check all that apply, or write in categories not listed;
- **Anticipated lodging**. While the hotel will receive your hotel reservation form, we need to know where you plan to stay, too.

What Conference fee should I select?

SECTION 2

- **"Full Conference"** allows you to attend the entire conference or any combination of two days;
- **"Sunday only", "Monday only" or "Tuesday only"** allows you to attend the conference on **the respective day** for which you register. *If you choose a one day only category, you must arrive and depart on the same day. Your registration materials will only be available for you on the day you are registered.*
- **"Preservice Student"** accommodates college preservice students in Science Education. Both full conference and a one day onsite rate are available. Check the STANYS membership information elsewhere in the brochure for information about this category of STANYS membership.
- **"Retired"** allows the retired science educator to register for the equivalent of the Full Conference category.
- **"Nonteaching Spouse and Child"** choices are for those persons who wish to attend workshop sessions and/or visit the exhibits. The category allows participation of the person at the Full Conference level. If you are registering in this category you must complete Sections 3 and 4 as described below. The Child Conference Registration fee is for children in Grades 12 or under.

The rates for the above categories are split into two divisions; current STANYS member and nonmember or renewal, and offer two rate schedules depending on when you submit your registration form. To determine which division applies to you, check for your STANYS membership expiration date, or use nonmember to obtain a new or renewed membership. Note: You can realize substantial savings if you register by the "early bird" deadline. This advantage is offered to help the Conference committee meet the needs of all Conference registrants, and helps assure you that your highest priority requests are met.

In order to qualify for the "early bird" rate you must submit your form with US Post Office cancellation mark dated on or before Friday October 10, 2003.

What workshop requests should I include?

SECTION 3

Indicate which workshop you wish to attend in each of the sessions (X,Y, Z and A through G) Three priority choices are required. Many workshop presenters place limits on the number of people they can accommodate, and rooms are limited in size to a maximum number of people. By scheduling you into each session according to your highest priority or to the highest priority we can reach for you, you are assured of getting into sessions that come closest to meeting your needs, and you are guaranteed a seat in the room no matter when you arrive for the session. By scheduling each participant into sessions the Committee can often make last minute adjustments to room assignments to accommodate the largest number of participants, and still hold to the presenter's request. Sessions will not be overbooked. **Please note: You can only enter a workshop session if the number for that session is printed on your name badge.**

What function requests should I include?

SECTION 4

Function requests, includes the tournaments, special luncheons, and a social. Any Conference attendee may attend these functions, however, **preregistration is required for each.** A meal ticket for each special luncheon can be purchased at the respective hotel by registrants who are **not** lodged in either hotel. If you are lodged in one hotel and attend a special luncheon in the other hotel, you use the meal ticket for your hotel. It is important to indicate which functions you wish to attend because the Conference committee prepares attendance lists for the respective hotels to assist them in preparing for the functions.

You must preregister for the following:

- **Golf or tennis tournament**; Sunday, but you can only select one since they run concurrently.
- **Intermediate Level Luncheon**; Monday, if you have an interest in Intermediate Level Science Education;
- **Science Leaders Luncheon**; Monday, if you are a member of the New York State Science Education Leadership Association, or are interested in Science Education Leadership. This luncheon is also the Annual Meeting of the Membership of NYSSELA;
- **Elementary Teachers Social**; Monday, 6:00 p.m., if you are an elementary teacher, or are interested in networking with other elementary educators. A meal ticket is not required for this function. Please note the location for the event in the conference schedule;
- **Science Honor Society Luncheon**; Tuesday, if you are involved with a Science Honor Society chapter, or want to find out more about starting a chapter in your school.

How do I register by mail or fax?

SECTION 5

- **Credit card**: Visa and MasterCard accepted; check the appropriate box and complete the credit card information. If the cardholder is someone other than yourself, the cardholder's name, card number, card expiration, and signature go in the respective boxes on the form. Otherwise the information you provide pertains to your card.
- **Check:** check the appropriate box and match the amount of your check to the amount of the conference fee you checked in Section 2 on the form. If you are submitting more than one form, that is, one for you and a form or forms for other registrants, the check can be written to cover all of the fees for all of the registrants. Make your check payable to "STANYS Conference"
- **Purchase orders are not accepted.**
- **Mail** completed form with payment to: Conference Registrar, 489 Echo Road, Vestal, NY 13850 or
- **Fax** can be used **only** when paying by **credit card**. Fax to 607-467-6194

How do I use the STANYS web site to help me with my registration?

You can view this entire Conference Brochure, including the Registration and Hotel Form at the STANYS web site, You can print out the pages of the brochure for your convenience. The Conference Registration Form and the Hotel Reservation Form are both **interactive**. This means you can fill out either one while at the web site, and then print out the completed form. You cannot pay your conference registration nor your hotel deposit at the website. This option allows you to have legibly printed forms to send with your payment to the Conference Registrar and to the Hotel Reservations Desk.

How do I register and pay online?

This year, for the first time, STANYS offers online Conference registration with **payment by credit card, only.** To register and pay on line:

- Complete a paper registration form using the brochure form or a copy of it.
- Go to the STANYS web site, www.stanys.org, and follow the directions for registering online;
- Print, and save for your records, the completed online Registration Form.

108th Conference Registration Form - 2003

For Office Use Only: Reg No. Date R'cvd Check No. Cash / MC / V Payment Amt. Member Status

TEAR ALONG PERFORATION

1. REGISTRANT/MEMBERSHIP DATA: Each participant, ***including spouse and/or children***, must complete a ***separate*** registration form. Duplicate the form as needed. Please print all information. ***Lines marked with an asterisk (*) in the form will appear on your Conference name badge. Use wording you wish to have appear on your Conference name badge.***

†† Your unique four digit STANYS ID# appears on your membership card.

STANYS ID #††	**Membership Status:** ❑ New ❑ Renew ❑ Current (Expires 2004+)
Your Name *	School Name *
Home Street	School Street
Home City	School City *
Home State Home Zip	School State * School Zip
Home Phone ( )	Work Phone ( )
Email Address	

STANYS Section to which you wish to belong: (Circle one) **[see page 6 for a complete Section listing]**
NYC (BQ) Ce CL CW Ea MV Na NC NE NW SE So SW Su WE WR

Category of STANYS membership: (Check one) *Membership year runs from 7/1 - 6/30; fee not refundable.*
❑ Elementary ❑ Middle/Junior ❑ High School ❑ College ❑ Associate ❑ Retired ❑ Student (preservice)

Specific subject or position of responsibility: (Check all that apply)
❑ Biology ❑ Chemistry ❑ Earth Science ❑ Physics ❑ Environmental ❑ Administration ❑ Other _____

ANTICIPATED LODGING: (CHECK ONE) ❑ Nevele West ❑ Nevele East ❑ Other ❑ Commuter

2. CONFERENCE SCHEDULE: Check the appropriate box next to the fee to indicate the registration category you want:

For 2003

† Indicates STANYS membership fee is included.

	EARLY BIRD DISCOUNT USPO cancellation mark on or before 10/10/03		REGULAR FEE USPO postmarked after 10/10/03 and on site	
	Current STANYS Member (2004 or greater)	Nonmember or Renewal	Current STANYS Member (2004 or greater)	Nonmember or Renewal
Full Conference	$75 ❑	$113 ❑ †	$100 ❑	$138 ❑†
Sunday only	$50 ❑	$88 ❑ †	$75 ❑	$113 ❑†
Monday only	$55 ❑	$93 ❑ †	$80 ❑	$118 ❑†
Tuesday only	$40 ❑	$78 ❑ †	$65 ❑	$103 ❑†
Preservice Student	$38 ❑	$57 ❑ †	$63 ❑	$82 ❑†
Retired	$33 ❑	$52 ❑ †	$58 ❑	$77 ❑†
Nonteaching Spouse (for workshops and/or exhibits)		$33 ❑		$58 ❑
Child (for workshops and/or exhibits)		$18 ❑		$18 ❑

3. WORKSHOP REQUESTS*: Please enter the number for each workshop you wish to attend in each session (X, Y, Z, A, B, C, D, E, F and G). Please indicate a second and third choice for each session, also. Since sessions fill quickly, we may have to assign you to your second or third choice. You cannot enter a session at the conference unless the number for it shows on your name badge.

	SUNDAY, NOV. 2			MONDAY, NOV. 3				TUESDAY, NOV. 4		
Choice	X 12:30pm	Y 1:45pm	Z 3:00 pm	A 8:00 am	B 9:30 am	C 11:00 am	D 1:45 pm	E 8:00 am	F 9:30 am	G 11:00 am
First										
Second										
Third										

4. FUNCTION REQUESTS*: Check the functions that you wish to attend. **A hotel meal ticket is needed for any of the meal functions you check. Standard hotel fees are charged for the tournament events. See related sections for more info.**

PREREGISTRATION REQUIRED FOR ALL FUNCTIONS.

Tournament (Sun., Nov. 2) ❑ Golf ❑ Tennis	❑ **Intermediate Level Luncheon** (Mon., Nov. 3)	❑ **Science Leaders Luncheon** (Mon., Nov. 3)	❑ **Elementary Social** (Mon., Nov. 3)	❑ **Honor Society Luncheon** (Tues., Nov.4)

5. MAIL THIS FORM WITH YOUR PAYMENT: (Check form of payment.) **PURCHASE ORDERS ARE NOT ACCEPTED.**

❑ **Paying by credit card.** ❑ Visa ❑ Master Card

Print Cardholder's Name	Card Expiration Date
Card Number	Cardholder's Signature
Fax form with credit card information to 607-467-6194.	Office Use: A#

❑ **Paying by check: Please enclose a check, made payable to: STANYS Conference, for the amount indicated in #2 above.**

SEND THIS FORM WITH PAYMENT TO: Conference Registrar, 489 Echo Road, Vestal, NY 13850

A-01 SCIENCE DATA COLLECTION WITH PALM OS® HANDHELDS

Walter Rohr, Diana Gordon, and Dan Holmquist, Vernier Software & Technology

Intermediate, High School, College: General

Note: This session starts at 7:30 a.m. If you attended the triple workshop X-01; Y-01; and Z-01 you should not attend this session.

In this hands-on workshop, we will show you how to integrate Vernier technology into your classroom! Learn to use the award-winning Vernier LabPro® interface to collect data with Palm OS® handhelds. Perform experiments using Vernier auto-ID sensors.

A-02 PHYSICS BREAKFAST PRESENTATION: RTOP: A TOOL FOR REFLECTIVE PRACTICE

Joseph Zawicki, DAL - Physics, Buffalo State College; Dan MacIsaac and Kathleen Falconer, Buffalo State College

High School: Physics

The presentation will use the Reformed Teaching Observation Protocol (RTOP) as a tool for teachers to reflect on their practice. RTOP provides a standardized means to assess reformed teaching practices. Attendees must have a hotel breakfast meal ticket. For those not staying at the hotel, tickets may be purchased at the hotel reservation desk for $10. (NOTE TIMES: 7:00 - 9:00 a.m.)

A-03 PUT SOME ACTIVE INTO PROBLEM SOLVING ACTIVITIES

Kenis Sweet, YMCA Camp Chingachgook

All: General

Using games and scenarios, participants will work together to creatively solve physical challenges. Activities and follow-up discussions build respect, community, esteem, responsibility & trust.

A-04 BUBBLEOLOGY

Dr. Ray Ann Havasy and Eric Patysiak, Center for Science Teaching and Learning

K-12: General, Living Environment, Chemistry, MST, Physics

Bubbleology uses bubbles to teach many concepts including interference angles and surface tension. Teachers will get materials to take back and have fun.

A-05 INQUIRY AND STANDARDS BASED MIDDLE SCHOOL SCIENCE FROM PREMIER

Doug Welles and Paul Oravetz, Frey Scientific

Intermediate, Supervisory: General, Elementary, Supervision/Adminstration

Engage your students with hands-on inquiry-based science from Premier. This standards based curriculum will excite and motivate your middle school students.

A-06 ELDERHOSTEL EXPERIENCES MAY BE FOR YOU

Dr. Herbert Koenig, retired; Fred Oberst STANYS

All, Retirees: General

If you are 55 years of age or older, there could be an Elderhostel program in your future. Come learn about these fantastic opportunities.

A-07 ANOTHER 4 CHEMISTRY LABS

Ed Rogers, Highland Central Schools

High School: Chemistry

A different set of 4 labs to be used in Regents Chemistry will be presented. Handouts for each lab will be available.

A-08 TEACHING ENVIRONMENTAL EDUCATION THROUGH THE ELEMENTARY SCIENCE STANDARDS

Frank Benenati, NYS Outdoor Education Association

Elementary: Elementary

Workshop activities will demonstrate that teaching environmental education through the NYS Elementary Standards for MST is easily accomplished.

STANYS Fellows gather to congratulate the newly inducted 2002 Fellows, Marilyn Reiner, Vivian Pokrzyk, and Larry Rand

A-09 ACROSS THE BOARD ASSESSMENT

Glenn Dolphin, DAL - Earth Science, Union-Endicott High School

High School: General, Earth Science

Encourage critical thinking, analysis, and use of different learning styles by utilizing not so conventional assessment techniques. Modified multiple choice, science acrostics, and word imaging are just a few topics addressed to help make assessment a learning experience.

A-11 TRY OUT THE NEWEST TECHNOLOGY FROM TI

Stephanie Crean, Texas Instruments

Elementary, Intermediate, High School,College, Supervisory, Retirees: General

Navigate your way through the science classroom! Receive hands-on experience with the new Navigator learning system to assess comprehension quickly, anonymously, and wirelessly!

A-12 INTEGRATING THE MIDDLE SCHOOL MATH AND SCIENCE CURRICULA

Loretto Canfield, St. Martin dePorres School

Intermediate: MST

Methods for integrating the math and science curricula at the Middle School level will be discussed and demonstrated.

A-13 UTILIZING THE SHAWANGUNK MOUNTAINS FOR EARTH AND ENVIRONMENTAL FIELD EXPEDITIONS

Russell Agostaro, Newburgh Enlarged City School District

Intermediate, High School, College: Earth Science, Environmental Science

Earth and environmental science field-based activities on the Shawangunk Ridge (Ulster County, NY)

A-14 CHANDRA AND THE X-RAY UNIVERSE

Paul Stengel, Shoreham-Wading River High School, retired

High School: General, Earth Science, Physics

The Chandra X-ray satellite is the most advanced X-ray observatory launched by NASA. Find out how Chandra's observations of supernovae, colliding galaxies, black holes and pulsars are changing our theories of the cosmos. Activities/handouts

A-15 PREPARING FOR THE NEW STATE ELS TEST

Laura Lehtonen, Capital Region BOCES; Jackie Garelick, Margaretville Central School & ONC BOCES

Elementary: General, Elementary

Strategies on how to prepare elementary students for the new elementary test will be shared.

A-21 ELEMENTARY SCIENCE METHODS COURSES

Rodney Doran, University at Buffalo; Patricia Price, College of Saint Rose; Richard Reif, SUNY College at New Paltz; Janet Siulc, University at Buffalo & Buffalo Public Schools

Elementary, Intermediate, College, Supervisory: Elementary, Supervision/ Adminstration, College

This course is expected to orient beginning teachers to content, curriculum, instruction and assessment issues. Several panelists will describe several models of this course and stimulate further discussion.

A-23 HOW TO CONDUCT ARCHAEOLOGY DAY AT YOUR SCHOOL

Peter Jablonski, Orleans Niagara Boces

All: General

Large display of artifacts from Circa 1880, video of digs. How to find and obtain permission for a dig site. Presenter will explain how his students excavated a privy (outhouse), learned how to use microfilm, took rubbings at cemetery, and put together a display.

A-24 CLASSROOM DESIGN BASED ON THE STATE AND NATIONAL TEACHING STANDARDS

Neal Berkin

All, Supervisory: General, Supervision/ Administration

If you are building new science classrooms, don't use the traditional 40 year old design. Build facilities that support National Teaching Standards. Facilitate the daily use of technology.

A-25 WRITING ARTICLES FOR THE SCIENCE TEACHERS BULLETIN

Scott Robinson, SUNY Brockport

All: General

Come to this session if you are interested in having an article published in the STANYS journal.

A-26 NAME THAT ORGANISM... USING A DICHOTOMOUS KEY

Jean Quattrocchi, Farnsworth Middle School

Intermediate, High School: General, Environmental Science, Living Environment

Using a dichotomous key is a skill required by the NYS Standards. Students enjoy trying to unlock the answers these keys hold. Participants will use a variety of dichotomous keys which can be used in the classroom.

A-27 NASA EARTH TO ORBIT ENGINEERING DESIGN CHALLENGE THERMAL PROTECTION SYSTEM

Kenneth Huff, Mill Middle School

Intermediate: MST

Design a model thermal protection system for the next generation of space transportation vehicles and test it over a propane torch.

A-28 NYLEARNS.ORG

Eric Vosburgh and Jeff Dolce, Center for Applied Technology in Education (CATE)

Elementary, Intermediate, High School: General, MST, Supervision/Administration

We will demonstrate NYLearns; a standards-based , educational website that offers resources to students, parents, teachers and administrators to enhance teaching and learning.

A-29 and B-29 HANDS ON IMAGE PROCESSING USING THE FLEXIBLE CAMERA SERIES CURRICULUM GUIDE

David Doty, Clear One Communications; David Sandomir, Micro Optics

All: General, Living Environment, MST, Research

This is a double workshop session involving A-29 and B-29. Participants must register for, and attend, BOTH workshops.

Teachers will be provided with hands-on experience with the ClearOne products used for classroom instruction. Images created by teachers during this workshop can be posted to the Internet, shared among students, gathered into digital portfolios, and analyzed with simple, but sophisticated software developed by ArcSoft and the National Institute of Health. In this workshop we provide hands-on experience with lap top computers and Flex Cams. Participants will receive a packet containing instructional materials, images, and software on CD-Rom.

A-32 and B-32 FORAM FUN

Dr. Sam Bowser and Dr. Andrea Habura, Wadsworth Center, NYS Dept. of Health; Melissa Joslin, Averill Park High School

High School: Living Environment, Earth Science

This is a double workshop session involving A-32 and B-32. Participants must register for, and attend, BOTH workshops.

Using the Neo/Sci Kit, Living Sands - Mapping Time and Space with Forams, participants will be introduced to hands-on activities that relate to cells, evolution, ecology, geology, and geological time.

A-33 SCIENCE KIT PRESENTS: TEACHER DEVELOPED PRODUCTS

Paula Loggans, Science Kit & Boreal Laboratories

K-12: General

Science Kit works with teachers to develop products including labs, demos, and manipulatives. Come see our latest kits, including the new teacher developed elementary kits - Science Kit Juniors. Maybe you have an idea, too! Many giveaways!

A-34 and B-34 SUN & SHADOWS: INTEGRATED MST PERFORMANCE ASSESSMENT

Franceline Leary, Troy City Schools; Rebekah Rice and Paul Zachos, ACASE

Intermediate, High School: General, Earth Science, MST

This is a double workshop session involving A-34 and B-34. Participants must register for, and attend, BOTH workshops.

The origins of mathematics, science and technology lie in the ancient study of sun and shadows. Experiential learning in this area can lead to attainment of state standards.

A-36 BIOLOGY BREAKFAST - CELEBRATING 50 YEARS OF THE DOUBLE HELIX

Alan Seidman, DAL - Biology, Margaretville Central School; Mary Colvard, STANYS; Cold Spring Harbor Lab DNA Learning Center; Karen Gough, Bio Mentor Network; Cold Spring Harbor Lab DNA Learning Center

High School: Living Environment, Supervision/Administration

Highlights from the DNA Anniversary interactive website. Latest info on Part D. Updates from SED and BioMentor Network. The Biology Breakfast is sponsored by Wards Natural Science. Attendees must have a hotel breakfast meal ticket. For those not staying at the hotel, tickets may be purchased at the hotel reservation desk for $10.

(NOTE TIMES: 7:00 - 9:00 a.m.)

B-01 SCIENCE DATA COLLECTION WITH TEXAS INSTRUMENTS HANDHELDS

Walter Rohr, Dan Holmquist, and Diana Gordon, Vernier Software & Technology

Intermediate, High School, College: General

Note: This session starts at 7:30 a.m. If you attended the triple workshop X-01; Y-01; and Z-01 you should not attend this session.

In this hands-on workshop, we will show you how to integrate Vernier technology into your classroom! Learn to use the award-winning Vernier LabPro® interface to collect data with Texas Instruments handhelds. Perform experiments selected from our popular lab manuals (correlated to state and national standards) using Vernier auto-ID sensors.

B-02 UPDATE ON ISSUES SURROUNDING THE PHYSICS EXAM

Joseph Zawicki, DAL - Physics, Buffalo State College

High School: Physics

The June 2003 Physics Exam: What are the issues? What do the student papers look like? The analysis of student papers sponsored by STANYS, NYSSELA, and MYSS-AAPT will be presented. Input from participants will be encouraged.

B-03 MEASURING METRIC

Sheila Brady Root, St. John Fisher College

Intermediate, College: MST

Students perform two hands-on metric measurement experiments to increase abilities in observation, data collection, and analysis. Team work is used to increase students observation, data collection and use of microsoft Excel graphing and websites are utilized to enrich their understanding and concepts.

2002 Service Award winners: Ken Licata and Rita Calvo

B-04 INTRODUCTION TO PROJECT LEARNING TREE

Richard Rommel, New York Project Learning Tree; Larry Rand, Ellenville School District

All. K-12: Living Environment, Earth Science

Project Learning Tree (PLT) is an award winning environmental education program designed for teachers and other educators working with students in grades pre-K-12 using the environment as a teaching tool.

B-06 Geology and Mystical/ Unique Places of Earth!

Len Sharp, Liverpool High School - Annex; Susan Sharp, Phoenix High School

All: General, Earth Science, Environmental Science

Easter Island, Egypt, Antarctica, Santorini, Japan, Costa Rica, China, Greenland, Iceland, Alaska, Hawaii, Peru and 80 National Parks. Slides, personal stories, PowerPoint, rocks, and selected activities.

B-07 THE SCIENCE OF FOODS; HIGH SCHOOL SCIENCE TEACHERS WORKSHOP

Janice Brown, Dept of Food Service, Cornell University

Intermediate, High School: General, Chemistry

A workshop for science teachers to learn about the biology and chemistry of foods. Subjects include food: safety; fermentation; colors; production; vitamins; enzymatic browning, etc.

B-08 THE BAT KIT

Robert Suran, Cornell Institute for Biology Teachers, Cornell University

Elementary: Elementary, Living Environment

Learn about the ecology , anatomy and conservation of the only flying mammals - bats. Includes inexpensive and fun hands-on activities for elementary students.

B-09 FUN WITH FORCES

Kate Van Baren and Lee Ann Kuhne, Onteora Middle School

Elementary, Intermediate: General, Physics

Try out activities that illustrate forces (gravity, bouyancy, friction,etc) through high interest demonstrations and hands on laboratory investigations.

B-10 POLYMERS 101. PLASTICS AND OTHER NEAT STUFF

David Teegarden, Eastman Kodak Company

Elementary, Intermediate, High School, College: Elementary Chemistry, Environmental Science

We'll begin with an introduction to polymers including an overview of the major types, why they behave as they do, and how they are made. Intriguing demonstrations will illustrate physical science principles and some properties of polymeric materials (e.g., gels)

B-11 WHAT'S 'APP'ENING AT TI?

Stephanie Crean, Texas Instruments

Elementary, Intermediate High School,College: General

Learn about software available for graphing handhelds that helps students understand scientific notation, vectors, biological concepts, and more!

B-12 and C-12 WHAT MEETS THE EYE

Dr. Monica Plisch, Center for Nanoscale Systems, Cornell University; Andy Telesca, Jr., Binghamton University

High School: Physics

This is a double workshop session involving B-12 and C-12. Participants must register for, and attend, BOTH workshops. Presentation of the basics of light, its production, detection by the eye, a spectrometer, and light intensity meter. First of two sessions including Is the Light Fantastic? Handouts. Information on Institute for Physics Teachers.

B-13 THE BEST NEW PHYSICS SOFTWARE

Dave Barnes, Arbor Scientific

Elementary, Intermediate, High School: Physics

Enhance your lab thru computer simulations. See our newest physics software. Fun, innovative, student centered simulation for introducing key concepts in Physics. Free demo discs available.

B-14 COOL SCIENCE: GLACIERS AND CANADIAN ROCKIES

Todd Hill, Ph.D, Port Jervis City School District

High School: General, Earth Science

A slide presentation will be given to discuss and to show glaciers and glacier features visible in and around Banff Park in Canada, includes Lake Louise, Columbia Ice Fields and Jasper Region Areas.

B-15 PREPARING FOR THE ELEMENTARY SCIENCE PERFORMANCE TEST

Elizabeth Whiston, Lillian Patten, Geraldine Simson, and Myrna Vasquez-Levy, North Rockland School District

Elementary: General, Elementary

The workshop will be divided among key concepts in the State performance test, such as: classification; electricity and magnetism; and measurement. We will have hands on practical experiments as well as alternative assessments.

B-21 NEW YORK TEACHER RESEARCHER SYMPOSIUM

Kim Bilica, SUNY at Buffalo - Dept. of Learning & Instruction

K-12, College: General, MST, Research

Poster session by and for teachers engaged in data-driven classroom research in science teaching and learning.

B-22 EARTH SCIENCE IDEAS AND INITIATIVES FROM THE NYS LISTSERV

Thomas McGuire, ESPRIT; Dr. James R. Ebert, SUNY College at Oneonta

High School: Earth Science

The New York State Earth Science (ESPRIT) e-mail Listserv has opened new possibilities for teachers to communicate and share teaching resources. Find out more about the ESPRIT Listserv and meet some of the people behind the on-line signatures.

B-23 THE ENSEMBLE METHOD OF WEATHER FORCASTING

Richard Townsend, Sidney High School

Intermediate, High School: General, Earth Science

You and your students can forecast like meteorologists! Learn to use the Internet to access surface, satellite, radar, and computer model data, and prepare forecasts for your school.

B-24 WWW.WEBQUESTS.MIDDLESCHOOLSCIENCE.COM

Arnie Serotsky, retired, CW Section STANYS

Intermediate: General

Come for a presentation on the use and development of webquests, internet based guided inquiries, in teaching science. Leave with ideas and handouts!

B-25 and C-25 NEW YORK STATE SCIENCE OLYMPIAD SITE COORDINATORS MEETING

Harold Miller and Harry Kranepool, New York State Science Olympiad

Intermediate, High School: General

This is a double workshop session involving B-25 and C-25. Participants must register for, and attend, BOTH workshops.

Meeting of the site coordinators to view rules, new events and regulations, etc. ONLY SITE COORDINATORS WILL BE ADMITTED.

B-26 MAKING CONNECTIONS – A REQUIRED LIVING ENVIRONMENT LAB

Alan Seidman, DAL - Biology, Margaretville Central School; Cookie Barker, SAR - Biology, NE Section

High School: Living Environment

If you attended X-21, Y-21, and Z-21, you should NOT register for this workshop. Hands-on session to prepare for the student design lab. LE teachers who have not yet tried the lab should attend. If you've run the lab and have suggestions, please attend.

B-27 and C-27 50 CLASSIC GEMS IN THE LITERATURE OF SCIENCE

Dr. Mitch Batoff, President-elect NJSTA (2003-2004)

All: General

This is a double workshop session involving B-27 and C-27. Participants must register for, and attend, BOTH workshops.

Hands-on activities from classics by Michael Faraday, C.V. Boys and Martin Gardner, choice video clips, and stimulating selections from 47 other great books. Valuable handout. Door prizes.

B-28 TEACHING WITH TECHNOLOGY: LESSONS LEARNED FROM AN NSF-FUNDED PILOT PROGRAM

Robin Heyden, Prentice Hall

High School: Living Environment

What does the world wide web have to offer? How do I get myself and my classroom internet-ready? How do I sort through all the options and make good decisions? Robin Heyden, co-author of Biology and Exploring Life, shares resources, ideas and lessons learned from 63 pilot-testing biology teachers who use technology in their classrooms.

B-29 and A-29 HANDS ON IMAGE PROCESSING USING THE FLEXIBLE CAMERA SERIES CURRICULUM GUIDE

David Doty, Clear One Communications; David Sandomir, Micro Optics

All: General, Living Environment, MST, Research

This is a double workshop session involving A-29 and B-29. Participants must register for, and attend, BOTH workshops.

Teachers will be provided with hands-on experience with the ClearOne products used for classroom instruction. Images created by teachers during this workshop can be posted to the Internet, shared among students, gathered into digital portfolios, and analyzed with simple, but sophisticated software developed by ArcSoft and the National Institute of Health. In this workshop we provide hands-on experience with lap top computers and Flex Cams. Participants will receive a packet containing instructional materials, images, and software on CD-Rom.

B-32 and A-32 FORAM FUN

Dr. Sam Bowser and Andrea Habura, Wadsworth Center, NYS Dept. of Health; Melissa Joslin, Averill Park High School

High School: Living Environment, Earth Science

This is a double workshop session involving A-32 and B-32. Participants must register for, and attend, BOTH workshops.

Using the Neo/Sci Kit, Living Sands - Mapping Time and Space with Forams, participants will be introduced to hands-on activities that relate to cells, evolution, ecology, geology, and geological time.

B-33 FIELD EXPLORATIONS IN ENVIRONMENTAL SCIENCE

David Baker; Michael Mallon, James I. O'Neill High School

Intermediate, High School: Environmental Science

This workshop will engage participants in Environmental Science Field Activities. This workshop is an outdoor experience - dress accordingly. Appropriate for ML/HS Environmental Ed Teachers.

B-34 and A-34 SUN & SHADOWS: INTEGRATED MST PERFORMANCE ASSESSMENT

Franceline Leary, Troy City Schools; Rebekah Rice and Paul Zachos, ACASE

Intermediate, High School: General, Earth Science, MST

This is a double workshop session involving A-34 and B-34. Participants must register for, and attend, BOTH workshops.

The origins of mathematics, science and technology lie in the ancient study of sun and shadows. Experiential learning in this area can lead to attainment of state standards.

B-37 and C-37 PROJECT WATERSHED: A WATER QUALITY EDUCATION OPPORTUNITY

Bill Legg, Liverpool Central School District, retired; Patty Weisse, Centers for Nature Education

High School, Retirees: Living Environment, Chemistry, Earth Science, Environmental Science, MST

This is a double workshop session involving B-37 and C-37. Participants must register for, and attend, BOTH workshops.

Project Watershed provides a stream monitoring experience for high school students and adults. Participants conduct physical, chemical and biological measurements at local stream site. Teacher developed lessons derived from Project Watershed database will be distributed. Bring water wear.

C-02 Cache-ing in with Rocks and Acorns

Gib Brown, Ausable Valley Middle School; K.D. Chimene, West Genesee Schools

Intermediate, High School: General, Living Environment, Earth Science,

This hands on workshop will incorporate GPS technology and topics from the PS/ES and LE cores to provide a unique, fun filled, investigative activity for intermediate level students

C-03 6.3 BILLION REASONS TO BUILD POPULATION LITERACY

Dr. Gail Tooker, SUNY-Cortland Dept. of Childhood/Early Childhood Education

Intermediate, High School: General, Environmental Science

Find innovative, interdisciplinary activities on past, present and projected population trends and their environmental and social impacts. Free materials!

C-04 INNOVATIVE IDEAS

Anna Liuzzo, Lewiston Porter Middle School; Vivian Pokrzyk, retired

Elementary, Intermediate: General, Elementary

Interactive hands-on activities focused on adapting modules such as Trouble in Fruitvale to NYS Standards, information on grant writing ideas, and action research results. Handouts.

C-05 PREPARE FOR NEW EARTH SCIENCE PERFORMANCE EXAM USING GLENCOE'S TEXTBOOK

Dr. Fran Hess, Cooperstown High School; Len Sharp, Glencoe-McGraw-Hill

High School: Earth Science

Learn how Glencoe's textbook and its activities prepare students for the new Earth Science Performance Exam. Textbooks and handouts for all. Valuable clasroom door prize.

C-06 VOICE YOUR CONCERNS TO THE CONSORTIUM

Bruce Tulloch, New York State Science Education Consortium

K-12: General

The mission and initiatives of the NYS Science Education Consortium will be briefly reviewed. Participants will then have the opportunity to share their concerns about state-directed reforms in K-12 science education.

C-07 REPAIR AND MAINTENANCE OF MICROSCOPES, BALANCES AND OTHER LAB EQUIPMENT

Raoul Bovelle, Mel Sobel Microscopes, Ltd.

All: General, Living Environment, Chemistry

Proper care and basic repair of various microscopes, balances (both mechanical and electronic) and other lab equipment. actual demonstration of repairs with Q&A.

C-08 VOCABULARY CHALLENGERS: AN EXCITING WAY TO TEACH STUDENTS SCIENCE VOCABULARY.

Bradly Pendergraft, Salmon River Central

Intermediate, High School: Elementary, Earth Science

Students work in groups to draw vocabulary words, they then rotate from poster to poster identifying other students' drawings in a fun hands-on activity.

C-09 or E-09 ACQUIRE AND ANALYZE SCIENTIFIC CONCEPTS IN REAL TIME

Nadine O'Shaughnessy, PASCO Scientific

High School, College: Chemistry, Physics

This is a repeat workshop involving C-09 or E-09. Register for only ONE.

Learn how probeware can help high school students gain a solid understanding of scientific phenomena. Whether it's for Chemistry, Earth & Environmental Science, General Science or Physics, probeware systems mean students simply plug in a sensor, push a button and instantly see scientific data displayed in real-time. Sensors, interfaces, software and lab manuals provide teachers complete, standards-based units. Find out how easy it is to get started using probeware today.

C-10 POLYMERS 201. UNIQUE PROPERTIES OF PLASTICS AND OTHER NEAT STUFF

David Teegarden, Eastman Kodak Company

Elementary, Intermediate, High School, College: Elementary, Chemistry, Environmental Science

In this session, we'll extend our understanding of the properties of polymers. Why is a silicone rubbery, polystyrene brittle, and polyethylene somewhere in the middle. Demonstrations of pure polymers and their solutions will help us understand.

C-11 PLANTING NEW IDEA THOUGHT INQUIRY

Dolores Miller, DAL - Chemistry, Alden High School, retired

Elementary: General

Experience activities that will help your students practice inquiry. Grow a garden in a bag, make presentation boards, and plant seeds for future investigations.

C-12 and B-12 IS THE LIGHT FANTASTIC?

Andrew Telesca, Binghamton University

High School: Physics

This is a double workshop session involving B-12 and C-12. Participants must register for, and attend, BOTH workshops.

Experience an original inquiry-based lab from the CNS Institute for Physics Teachers. Second of two sessions including What Meets the Eye. Handouts. Discussion on various levels on inquiry.

C-13 HERA: A SPACE SCIENCE ANALYSIS SYSTEM FOR STUDENTS

Dr. James Lochner, USRA & NASA/Goddard Space Flight Center

High School: MST, Research

Enable your student to explore black holes using x-ray data from NASA satellites! We present a software system for students to run sophisticated tools.

C-14 BaP SECTION LIAISON SHARE/UPDATE

Nancy Ridenour, Douglas Reynolds, and Rodney Doran, Building a Presence

K-12: General

BaP Section Liaisons will have time to share experiences with Key Leader Training, section and state resources for Key Leader professional development, and updates on NSTA/BaP.

C-15 or D-15 Update from SED

Ann Crotty, State Education Department

K-12: General

This is a repeat workshop involving C-15 or D-15 Register for only ONE.

This session will provide you with the latest information about developments in Science Education at SED.

2002 Executive Committee Award recipient Diana Harding, NYS Education Department.

C-21 ONLINE EDUCATION WITH BLACKBOARD.COM

Dr. Michael Hanophy, St. Joseph's College

All: General

See how Blackboard.com, a multi-channel e-learning destination site, can be used to create online courses or to supplement your regular classes.

C-22 and (D-22, or E-21, or F-22 or G-21) RECOGNIZING MISCONCEPTIONS—SESSION #1

Joseph Zawicki, Kathleen Falconer, David Henry, and Dan MacIsaac, Buffalo State College; Ann Wright and Kim Ferguson, Canisius College; Kim Bilica, Xiufeng Liu, and Gail Zichittella, SUNY Buffalo

All: General

LINKED SESSION. This first session will focus on general tools for diagnosing student misconceptions. This is the first of two linked sessions. Participants register for Recognizing Misconceptions (C-22), and then should register for a session on misconceptions in either: chemistry (D-22), elementary (E-21), living environment (F-22), or physical science (G-21).

C-23 CHEMISTRY TEACHERS' CLUB OF NEW YORK PRESENTS

Joan Laredo-Liddell, Marymount College; Abby Kurnit, Pelham Memorial High School; Jean Delfiner, American Chemical Society; Al Delfiner, Chemistry Teachers' Club of NY

High School: Chemistry

Members of the Club will present ideas and demonstrations that will be beneficial for all teachers, including a chemstry mentor update. Enjoy an exciting hour of chemistry.

C-24 LESSONS FROM MAKING BIODIESEL IN YOUR LAB

Kim Gilbertson, Moravia Central Schools

High School: Chemistry

Biodiesel is an alternative fuel made from used vegetable oil and is used to run diesel engines. The engines require no modification and produce much less pollution.

C-25 and B-25 NEW YORK STATE SCIENCE OLYMPIAD SITE COORDINATORS MEETING

Harold Miller and Harry Kranepool, New York State Science Olympiad

Intermediate, High School: General

This is a double workshop session involving B-25 and C-25. Participants must register for, and attend, BOTH workshops.

Meeting of the site coordinators to view rules, new events and regulations, etc. ONLY SITE COORDINATORS WILL BE ADMITTED.

C-26 BEAKS OF FINCHES - A REQUIRED LIVING ENVIRONMENT LAB

Barbara Hobart, retired; Alan Seidman, SAR - Biology

High School: Living Environment

If you attended X-21, Y-21, and Z-21, you should NOT register for this workshop. Hands-on session to prepare for this LE lab. LE teachers who have not yet tried the lab should attend. If you've run the lab and have suggestions, please attend.

C-27 and B-27 50 CLASSIC GEMS IN THE LITERATURE OF SCIENCE

Dr. Mitch Batoff, President-elect NJSTA (2003-2004)

All: General

This is a double workshop session involving B-27 and C-27. Participants must register for, and attend, BOTH workshops.

Hands-on activities from classics by Michael Faraday, C.V. Boys and Martin Gardner, choice video clips, and stimulating selections from 47 other great books. Valuable handout. Door prizes.

C-28 INTEGRATING PART D INTO THE BIOLOGY CLASSROOM

David Moss, Arlington High School - Bard College

High School: Living Environment

This session will consist of a series of activities, produced in conjunction with Bard College, aimed at integrating the Part D labs into the LE curriculum to enhance instruction.

C-29 EASY OBSERVING OF PROTIST WITH A FLEXCAM

Ms. Lee Kowalsky, John F. Kennedy Middle School; Jack Demma, PARCO Scientific Co.

K-12: Living Environment

Experience some enrichment activities and learn about protozoa and algae using the FlexCam, demoslides, and binomial keys. A PARCO microscope will be raffled to one participant.

C-32 REACH FOR THE STARS TO TEACH MATH, SCIENCE, AND TECHNOLOGY

Gary Heller, Andrew Blitzer, and Kathleen MacNaughton, Rockland BOCES

Elementary, Intermediate: Elementary, Earth Science, MST, Research

The Lower Hudson Valley Challenger Center provides a unique hands-on experience using authentic space flight simulations, to support the MST standards via curricula experiences.

C-33 HIV TESTING

Brian Turner, Weill Graduate School

High School, College: General, Living Environment

In this experiment, participants will perform an Enzyme-linked Immunosorbent Assay (ELISA) simulation to see how it is used in the diagnosis of HIV infection. The lab is a simulation and does not use HIV antigen or human blood samples: however, it is otherwise an accurate depiction of the technique.

C-34 NEW YORK STATE SCIENCE HONOR SOCIETY: AN ADJUNCT TO YOUR HS SCIENCE PROGRAM

Marillyn H. Reiner, NYSSHS - Chairperson; Uriel Goldsmith, NYSSHS - Board of Governors

High School: General

Beginning its second decade the New York Science Honor Society (NYSSHS), the first such honor society in the country, was established to encourage interest and understanding of science and science related careers and to recognize academic achievement in the study of science. Find out how its presence can achieve such objectives and how you may establish a NYSSHS Chapter in your school to enhance its science program.

C-37 and B-37 PROJECT WATERSHED: A WATER QUALITY EDUCATION OPPORTUNITY

Bill Legg, Liverpool Central School District, retired; Patty Weisse, Centers for Nature Education

High School, Retirees: Living Environment, Chemistry, Earth Science, Environmental Science, MST

This is a double workshop session involving B-37 and C-37. Participants must register for, and attend, BOTH workshops.

Project Watershed provides a stream monitoring experience for high school students and adults. Participants conduct physical, chemical and biological measurements at local stream site. Teacher developed lessons derived from Project Watershed database will be distributed. Bring water wear.

D-01 SCIENCE DATA COLLECTION WITH COMPUTERS

Walter Rohr, Diana Gordon, and Dan Holmquist, Vernier Software & Technology

Intermediate, High School, College: General

Note: This session starts at 7:30 a.m. If you attended the triple workshop X-01; Y-01; and Z-01 you should not attend this session. In this hands-on workshop, we will show you how to integrate Vernier technology into your classroom! Learn to use the award-winning Vernier LabPro(r) interface to collect data with computers. Perform experiments selected from our popular lab manuals (correlated to state and national standards) using Vernier auto-ID sensors.

D-02 TOOLS FOR ANALYZING ASSESSMENTS

Rodney Doran, University of Buffalo; Joseph Zawicki, Buffalo State College

All: General, Research, Supervision/ Administration

A program for test analysis as well as performance assessment resources will be discussed and distributed.

D-03 PROBLEM SOLVING ACTIVITIES FOR ALL AGES

Mary Thomas and Douglas A. Brucker, Elementary Science Program, Monroe 2 BOCES

All: General, Elementary

Gummi Bear Launchers, Spoolmobiles, and more will engage all ages at Open Houses, Family Science Nights, etc. Come and play! Handouts/ directions provided. Thinking caps required.

D-04 TEACHING THE LIVING ENVIRONMENT IN A DYNAMIC CLASSROOM

Linda Lundgren Author, Glencoe McGraw Hill/ University of Colorado

Intermediate, High School: Living Environment

Learn new exciting strategies for the Living Environment with Glencoe's new state specific Biology the Dynamics of Life. Free book in the mail - door prizes.

D-05 THE WINNING WAYS OF WILLOWS

Darlene Devendorf, OCM BOCES/Teacher Training Center; Nancy Volk, ESF SUNY

Intermediate: Elementary, Environmental Science, MST, Physics

Hands on introduction to an intermediate level MST science kit that highlights plant Biology, energy flow and the use of Biomass as an alternative energy source. Take home activities, ideas, a whole science unit!

D-06 SHARE-A-THON FOR SCIENCE EDUCATION LEADERS

Bruce Tulloch, National Science Education Leadership Association

Supervisory: General, Supervision/ Administration

Whether you are a new or veteran science education leader in your school, bring your problems and solutions to this session and we will share strategies, experiences, and ideas to help you in your role.

D-07 DIGITAL/VIDEO MICROSCOPY

Raoul Bovelle, Mel Sobel Microscopes, Ltd.

All: General, Earth Science, Environmental Science

Using digital and video cameras with your microscope, including Q&A on computer and video connections, the videoflex, accessories, software, etc.

D-08 Cloud Chambers and Cosmic Rays

Lora Hine, Lab for Elementary-Particle Physics, Cornell University; Jim Overhiser, Groton Central School District; Mike Mangini, Dryden Cental School District

High School: MST, Physics, Research

Learn about the origin of cosmic rays and how to observe these sub-atomic particles in your own classroom. A teacher's guide providing valuable background information is accompanied by a student handout containing detailed procedure steps to build your own cloud chamber.

D-09 UNLOCK THE SECRETS OF SCIENCE

Nadine O'Shaughnessy, PASCO Scientific

Intermediate: Living Environment, Earth Science, Environmental Science

With probeware, students don't just learn science, they experience science. Learn how to use probeware in your middle school science class to help students grasp intangible phenomena such as light, sound waves, force and motion more quickly. Find out how easy it is to incorporate probeware into your current curriculum and get students started collecting data with sensors and dataloggers immediately.

D-10 POLYMERS 301. WHY DON'T WE RECYCLE MORE PLASTICS, ANYWAY??

David Teegarden, Eastman Kodak Company

Elementary, Intermediate, High School, College: Elementary, Chemistry, Environmental Science

The plastics that enter our lives so readily are eventually discarded. We'll review the common types and major applications of polymers. Then we'll examine options and limitations for their recycling or disposal. Finally, we'll top it off with some demonstrations that illustrate basic principles.

D-11 AN INTRODUCTION TO THE TI-83+ FOR SECONDARY SCIENCE

Melody DeRosa, Texas Instruments

Intermediate, High School: Living Environment, Chemistry, Earth Science

A hands-on workshop using the TI-83+. Learn how to update the operating system, use the Apps software, link unit to unit and much, much more. Multiple resources shared.

D-12 WHAT IS YOUR COSMIC CONNECTION TO THE ELEMENTS?

Dr. James Lochner, USRA & NASA/Goddard Space Flight Center; Suzanne Pleau Kinnison, NASA-AESP

High School: Chemistry, MST, Physics

We trace the chemical elements all around us to their origins in cosmic events - the big bang, stars, stellar explosions, and cosmic rays.

D-13 EASY & SIMPLE DEMOS & LABS

Michael Abraham

Intermediate, High School: Chemistry, Physics

Easy to prepare assortment of Chem & Physics labs and demos will be presented. Some old, some new; all will catch your student interest and appeal to your sense of time control.

D-14 MASTODONTS IN THE MUCK

Jutta Siefert Dudley, PhD STANYS

All: General, Earth Science

Clues to the demise of the mastodonts after the Ice Age lie hidden in the sediments and bones found in swamps across New York State.

D-15 or C-15 Update from SED

Ann Crotty, State Education Department

K-12: General

This is a repeat workshop involving C-15 or D-15 Register for only ONE.

This session will provide you with the latest information about developments in Science Education at SED.

D-21 CELEBRATING 30 GREAT YEARS AT STANYS!

John Johnston, The Faraday Center

High School: Physics

My physics demo presentations began in 1973. Witness some of the best of the past that are still valuable and haven't been repeated recently.

D-22 and C-22 STUDENT MISCONCEPTIONS IN CHEMISTRY

Xiufeng Liu, SUNY Buffalo; Sarah Collard, Sweet Home High School; Gail Zichittella, Cheektowaga High School

Intermediate, High School, College: Living Environment

LINKED SESSION. This follow-up session to Recognizing Misconceptions (C-22) will explore student misconceptions in chemistry.

D-23 DIVISION B SCIENCE OLYMPIAD COACHES INFORMATION MEETING

Brendan Herlihy, New York State Science Olympiad

Intermediate: General

Meeting for the 2003-2004 Science Olympiad Division B coaches to discuss the year's rules, modifications and changes. Schools may register for this meeting.

D-24 EARTH SCIENCE: SHARE-A-THON

Tom Lewis, Mentor Monore BOCES #2; Len Sharp, Liverpool Central School; Susan Hoffimire Sharp , Phoenix Central School ; Gary Vorwald, Paul Gelanis Middle School; Peggy Warren, Kendall Central Schools; Brad Pendergraft, STANYS Presenter; Bill Sharp, Sidney Central Schools; Irv Soden, Sidney Central Schools retired; Fran Hess, New York State Mentor; Michael Osborn, Fayetteville-Manlius Central Schools; Claudia Tomback, Saftey consultant; Tom McGuire, New York State Mentor Amsco Publishing; Peggy Lomaga, Longwood Jr. High School; Steve Lander, Manhassett retired; Dave Robison, STANYS Northwest section SAR; Sheila Ornstein, South Jr. High School Newburgh; Laura VanGlad, Jefferson Central Schools, ; Brian Hugik, Somers High School; Michelle Ebert, Greece Arcadia High School; Jim Ebert, SUNY Oneonta; Nancy Elliott, SUNY Oneonta; Laura Hurteau, SUNY, Oneonta; Amanda Schulz, SUNY Oneonta; Tim Stewart, SUNY Omeonta; Carl Laterza, STANYS Presenter; Sandy Russell, Star Point Central Schools; ;

High School: Earth Science

Earth Science teachers from around the state share their ideas in an informal setting. Activities, labs and Ideas - handouts to use at your own school.

D-25 SCIENCE OLYMPIAD NEW COACH'S INFORMATION MEETING

Patricia Sherman, New York State Science Olympiad; Virginia Curry, U.S. Environmental Protection Agency

Elementary, Intermediate, High School: General

Meeting of coaches who will be, or are considering, participating for the first time in the 2003-2004 year. Rules, competition, events and how to organize a team will be discussed.

D-26 DIFFUSION THROUGH A MEMBRANE - A REQUIRED LIVING ENVIRONMENT LAB

Barbara Poseluzny, A. Philip Randolph High School; DeAnna Roberson, Brandeis High School

High School: Living Environment

If you attended X-21, Y-21, and Z-21, you should NOT register for this workshop. A hands-on workshop using the materials required. LE teachers who have not yet tried the lab should attend. If you've run the lab and have suggestions, please attend.

D-27 LIVING IT UP! HOW TO USE WILDLIFE TO ENHANCE STUDENTS' SCIENCE LEARNING

Mark Eisenhandler, Wildlife Conservation Society /Bronx Zoo

Elementary: Elementary

Sample activities from the Wildlife Conservation Society's Curricula (grades K-9). Stomp and chirp as part of the All Animal Orchestra. Investigate a habitat by delving into a Mystery Box and more. Lessons are interdisciplinary and aligned with the national and NYS Standards.

D-28 TEACHING SCIENCE THROUGH LITERACY AND VICE VERSA

Scott Robinson and Matt Chapman, SUNY Brockport

High School: General, Living Environment

This session will present and model strategies to enhance science and literacy in the high school science classroom.

D-29 DIVISION C SCIENCE OLYMPIAD COACH'S INFORMATION MEETING

Antonia Martin, New York State Science Olympiad

High School: General

Meeting for the 2003-2004 Science Olympiad Division C coaches to discuss the year's events as well as rules modifications and changes. Schools may register at this meeting.

D-31 KEYPADS: KINDER GENTLER TESTING

Leon M. Lederman, Illinois Math & Science Academy

High School, College: General

Tests or questions are an intrinsic part of pedagogy. This is an electronic assessment tool that is also an essential part of the teaching and learning process. I believe it to be a revolution in the test process. Though multiple choice questions are much maligned, they can be but a powerful way to test for conceptual grasp.

D-34 INSECTS - LIVING ENVIRONMENT STUDY IN THE ELEMENTARY CLASSROOM

Catherine Quindazzi, Kent Primary School

Elementary: Elementary, Living Environment

An interdiciplinary unit using insect study as a base. Do activities and experiments using live animals.

Rod Doran and others
examine really tiny things during a 2002 workshop

E-01 VIRTUALLY FOOLPROOF: SUPPLEMENTING ANIMAL DISSECTION

Joe Engemann, Faculty of Education, Brook University

High School: Living Environment

This presentation outlines strategies for using virtual dissection programs as a supplement to animal dissection.

E-02 CHEMISTRY BREAKFAST

Dolores Miller, DAL - Chemistry, Alden High School, retired

High School: Chemistry

You'll never come away empty-handed from this event. Join chemistry teachers for fun, food and prizes, along with activities you can use in your classroom. Attendees must have a hotel breakfast meal ticket. For those not staying at the hotel, tickets may be purchased at the hotel reservation desk for $10.

(NOTE TIMES: 7:00 - 9:00 a.m.)

E-03 AIR POWERED PROJECTILE: A FUN SAFE, ROCKET LAB FOR TEACHING PROJECTILE MOTION

Dwight Buzz Putnam, Whitesboro High School

Elementary, Intermediate, High School: Physics

Come try the Airpowered projectile, a predictable, repeatable projectile motion lab. This fun outdoor activity will be your students favorite lab of the year.

E-04 MOTIVATIONAL STRATEGIES

Thomas DePaola, Farmingdale High School

High School: General, Living Environment, Chemistry

This workshop will allow participants to learn some new instructional games for use in their science classrooms. These techniques can be used during review sessions, before vacations, or just to try something new.

E-05 RELATIONSHIPS AND BIODIVERSITY - REQUIRED LIVING ENVIRONMENT LAB

Cookie Barker, SAR - Biology - NE Section

High School: Living Environment

If you attended X-21, Y-21, and Z-21, you should NOT register for this workshop. Students use structural and molecular evidence to develop hypotheses about evolutionary relationships between several hypothetical plant species. LE teachers who have not yet tried the lab should attend. If you've run the lab and have suggestions, please attend.

E-06 INITIATIVE GAMES - ACTIVELY BUILDING A COOPERATIVE CLASSROOM

Susan Mitchell, Cornwall Central High School

Elementary, Intermediate: General, Elementary

Use fun games to get students out of their seats and working effectively with others. Activities are rooted in outdoor education ethics.

E-07 NAVIGATOR - A WIRELESS TI-83+ CLASSROOM THAT EVEN DOES THE ITEM ANALYSIS!

Melody DeRosa, Texas Instruments

Intermediate, High School, College, Supervisory: General

A hands-on demo of the latest in Educational Technology. Send and receive data, lists, Apps, assessments and even homework assignments to an entire classroom in a few seconds.

E-08 EXPLORING PARTICLE PHYSICS THROUGH GAMES

Lora Hine, Lab for Elementary-Particle Physics, Cornell University; Hallie Snowman, Ithaca Central School District

High School: MST, Physics, Research

These games were designed to allow students to understand the Standard Model in greater detail by exploring conservation laws, particle interactions and decay, and recognizing patterns of meson/baryon formation.

E-09 or C-09 ACQUIRE AND ANALYZE SCIENTIFIC CONCEPTS IN REAL TIME

Nadine O'Shaughnessy, PASCO Scientific

High School, College: Chemistry, Physics

This is a repeat workshop involving C-09 or E-09. Register for only ONE.

Learn how probeware can help high school students gain a solid understanding of scientific phenomena. Whether it's for Chemistry, Earth & Environmental Science, General Science or Physics, probeware systems mean students simply plug in a sensor, push a button and instantly see scientific data displayed in real-time. Sensors, interfaces, software and lab manuals provide teachers complete, standards-based units. Find out how easy it is to get started using probeware today.

E-10 DEMO TIME! LEARNING AND HAVING FUN WITH PHYSICS

Paul Stengel, Shoreham-Wading River High School, retired; Bob Spira, Ward Melville High School; David Wicks, East Hampton High School

Intermediate, High School: General, Physics

There's nothing like an effective demo to capture your students' attention and engage their minds. These proven, inquiry-based physical science demos are appealing to students in general science and physics. Handouts.

E-11 USING NATURE CRAFTS TO MEET THE NYS SCIENCE/MST STANDARD

Midge Monat, Scotchtown Ave. Elem. Sch.

Elementary: Elementary, Environmental Science, MST

Teachers will use nature products and natural materials to awaken children's creativity as they learn basic concepts that are required in the NYS MST Standards. They also will develop a better understanding on conservation and the environment.

E-12 MEET STATE STANDARDS USING TECHNOLOGY YOU'LL LOVE PROSCOPE... (Digital Microscope)

Wendy Peters, Hornell High School; Bill DiSisto, DiSisto Tech

All: General, Elementary, Living Environment

Use the Proscope, hand held digital video microscope, that attaches directly to your computer and create visual resources, such as slide shows and lab commercials.

E-13 ANATOMY OF THE FUNNYBONE II: INTEGRATION OF HUMOR AND SCIENCE EDUCATION

Julie Middleton, F.D. Roosevelt High School

High School: General, Living Environment, Chemistry

Dance? Sing? Make up jingles? Let's get together to share creative ideas on making science fun and relevant for our students!

E-14 NOTE TAKING IN THE MIDDLE SCHOOL SCIENCE CLASS

Markie Clowes and Robin Long The Harley School

Intermediate: General

A presentation of note taking that uses the split page method. Students learn to read material, formulate the main ideas as questions on one half of paper and provide answers on the other. Effective study skills.

E-21 and C-22 STUDENT MISCONCEPTIONS IN ELEMENTARY SCIENCE

David Henry, Buffalo State College

Elementary, Intermediate, College: Living Environment, MST, Physics

LINKED SESSION. This follow-up session to Recognizing Misconceptions (C-22) will explore misconceptions in elementary science. Specific action research projects will be described.

E-22 ELEMENTARY SCIENCE STUDENTS' JOURNALS ENHANCE SCIENTIFIC LITERACY

Marilyn Foote-Kragbe, City Honors School; Kim Ferguson, Canisius College

All: General

A novel curriculum using science journals in fifth and sixth grade urban classrooms, improves students' understanding of literacy in science. The relationship between the process of writing, and science concepts are the focus.

E-23 RADIO ASTRONOMY AND THE NASA STUDENT OBSERVATION NETWORK

Jim Thieman, NASA/Goddard Space Flight Center

Intermediate, High School, College: Earth Science, Physics, Research

Students perform hands-on radio astronomy, solar optical, Earth's magnetic field, and auroral observations in learning about solar dynamics and effects on the Earth. Code 633, NASA/GSFC

E-24 BaP POINTS OF CONTACT

Nancy Ridenour, Douglas Reynolds, and Rodney Doran, Building a Presence

K-12: General

BaP identified and potential Points of Contact will meet to discuss their roles in the schools; ideas for networking with professional development opportunities; and the full use and potential of the electronic network.

E-25 GRAPHING CALCULATOR (TI-83) PHYSICS

Robert Stewart, Sullivan County Community College

High School, College: Physics

An assortment of problems, graphical techniques and simulations for the physics curriculum using the TI-83 will be demonstrated. Use of the graph-link to create custom hand-outs keyed to the calculator will be demonstrated.

E-26 SARS: THE MYSTERY UNFOLDING

Polly Lotito, Union-Endicott Central Schools; Deidra Bigelow, Binghamton University

Intermediate: General, Living Environment

Use the rise and spread of the SARS virus to engage students in the process of science with student-centered activities. Handouts will be provided.

E-27 TOYOTA TAPESTRY GRANTS FOR TEACHERS = $$$

John Padalino, Paul F. Brandwein Institute

All: General

This is your opportunity to get tips and information about Toyota Tapestry grants for teachers from the chairman of the environmental science judging panel. There is $550,000 in large grants (up to $10,000) and mini grants (up to $2,500) available through NSTA this year.

E-28 DISPLAYING GPS DATA IN A GIS PROJECT

Barbara Nissen and Brenda Klaben, Syracuse City School District

Intermediate, High School: MST

The workshop pair GPS and GIS technologies. We will demonstrate the collection of spatial data using a handheld GPS receiver and how to use the data in GIS mapping software.

E-32 LAND OF THE RISING SUN: BE A FULBRIGHT MEMORIAL FELLOW (FMF)!

Len Sharp, Liverpool High School - Annex; Susan Sharp, Phoenix High School

All: General

Share our experiences as a FMF in Japan such as general education, science education, earthquakes, and culture. Learn how you can be a FMF. Handouts.

E-33 WILLOW BIOMASS: AN ALTERNATIVE ENERGY SOURCE

Nancy Volk and Timothy Volk, SUNY ESF

High School: Earth Science, Environmental Science, MST

Explains the power and advantage of growing willow trees as a fuel source. Preview the content at www.efs.edu/willow and click on EDUCATIONAL MODULES. The material is both teacher and student friendly.

E-35 USING MS OFFICE TO TEACH SCIENCE

Lee Roberts, Crystal Creek Studio

All: General

This session will provide examples of using Microsoft Office as an instructional tool as well as a student information management tool.

E-36 EARTH SCIENCE BREAKFAST

Glenn Dolphin, DAL - Earth Science, Union-Endicott High School

High School: Earth Science

Join us for a fun and informative time. We will have a guest speaker, Bill Kappel, from USGS: a NESTA raffle; and maybe more eurypterids! The earth science breakfast is sponsored by Glencoe. Attendees must have a hotel breakfast meal ticket. For those not staying at the hotel, tickets may be purchased at the hotel reservation desk for $10. ***(NOTE TIMES: 7:00 - 9:00 a.m.)***

Oh my! It is D= v/m or D = m/v?

F-01 JUMP-STARTING STUDENTS WITH INQUIRY ACTIVITIES

Dr. Herbert Koenig, N&N Publishing Co. Inc.; Robert Bush, STANYS

All, Elementary, Intermediate, High School: General

From the old to the new using established science activities to jump-start students in inquiry-based education. Participants will witness the use of easily acquired materials to initiate problem solving in classroom performance.

F-02 THE MATRIX PROJECT

John Chiment, Cornell Institute for Biology Teachers, Cornell University

All: General, Elementary, Living Environment, Earth Science

We examine soils ranging in age from 10,000 to 100 million years and collect small fossils. The fossils help determine soil age and the ancient environment.

F-03 COOL TOOLS FOR SOUND & WAVES

Dwight Buzz Putnam, Whitesboro High School

Elementary, Intermediate, High School: Physics

Looking for fun hands-on activities and demos for teaching waves of sound? Come try our best discovery-based teaching tools. Lesson ideas for all grade levels.

F-04 SCIENCE SUPERVISORS – LET'S TALK!

Peggy Lomaga, Longwood School District

Supervisory: Supervision/Administration

Open forum for present, future, and past science supervisors to share and discuss their experiences, concerns, and issues as educational leaders.

F-05 THE CIRCLE OF LIFE – A GAME OF COEVOLUTION

Cookie Barker, SAR - Biology - NE Section

High School: Living Environment

Living Environment concepts of natural selection, cell membrane structure, and immune responses are intertwined in a game of survival as a parasitic worm tries to outwit its host.

F-06 EVERYTHING A FIRST YEAR PHYSICS TEACHER NEEDS TO KNOW (BUT NO ONE TELLS YOU).

Judith Swanson, Edgemont Jr/Sr. High School

High School: Physics

Information will be provided to help the new physics teacher.

F-07 and G-07 USING NONFICTION IN PRIMARY CLASSROOMS: INTEGRATING SCIENCE AND LANGUAGE ARTS

Laura Lehtonen, Capital Region BOCES

Elementary: Elementary

This is a double workshop session involving F-07 and G-07. Participants must register for, and attend, BOTH workshops.

Experience practical strategies for using nonfiction in the classroom to develop science and language arts skills and content. Teacher and student resources will be shared.

F-08 TEACHING SCIENCE WITH THE JASON PROJECT

Tom Vitti, Nassau BOCES/Outdoor & Environmental Education

All: Elementary, Earth Science, Environmental Science

Teaching with the JASON project can be a fun way for your students to learn! Come and see how you and your students can go on expedition with Dr. Bob Ballard.

F-10 NEW TECHNOLOGY FOR SCIENCE CLASSROOMS

Paul Oravetz, Frey Scientific

Intermediate, High School: General

See a demonstration of our test writing and classroom presentation software for science teachers. Learn how to integrate the microscope and computer to produce high quality reports and presentations.

F-11 AND NOW FOR SOMETHING COMPLETELY DIFFERENT... THE INTERNATIONAL BACCALAUREATE SCIENCE PROGRAM

Richard Kurtz, South Side High School

High School: General

The IB Science program can definitely open up new avenues for student and teacher thinking and learning. Find out what is special and different about the IB program.

F-12 IN THE REALM OF LARGE NUMBERS HOW DO WE KNOW?

Dr. Mitch Batoff, President-elect NJSTA (2003-2004)

All: General

In this hands-on session , the quantitative activities will relate to a BIG IDEA which pervades all of the biological, physical, and social sciences. Useful handouts.

F-13 REGIONAL AND LOCAL GEOLOGY: CONCRETE EXAMPLES FOR YOUR CURRICULA

Jane Picconi, Paleontological Research Institution

K-12, College: Earth Science

Make sense of the geologic features in your community using a regional geologic history framework, and incorporate regional and local geology into your existing curricula!

F-14 MAGNETIC MOMENTS: 5Ez STEPS TO ENHANCE ELEMENTARY SCIENCE

Dr. Thomas O'Brien, Binghamton University

Elementary, Intermediate, College: Elementary, Research

Experience an overview of a magnetism unit and the NSF-funded project that uses Graduate Teaching Fellows to help grades 3-6 teachers use research-informed 5 E units.

F-15 EARTH SCIENCE ROCK SWAP

Alan Gelatt, Romulus Central School

K-12: General, Elementary, Earth Science

Swap your rocks for others from across the state. Please bring 65 pre-bagged sets with a written description.

The 2002 Fellows New Teacher Award winner, Bridgett Berardi, Canisteo Central Schools.

F-21 AN ALLIANCE MODEL OF PROFESSIONAL DEVELOPMENT

Joseph Zawicki, Dan MacIsaac, and David Henry, Buffalo State College; Monica Plisch, Cornell University

All: General, Supervision/Administration

This session will focus on the growth of teaching alliances in New York State. Models of physics alliances, mechanisms for developing alliances, and high school/university partnerships will be discussed.

F-22 and C-22 STUDENT MISCONCEPTIONS IN THE LIVING ENVIRONMENT

Kim Bilica, SUNY at Buffalo - North Campus

Intermediate, High School, College: Living Environment

LINKED SESSION. This follow-up session to Recognizing Misconceptions (C-22) will explore student misconceptions in biology.

F-23 INQUIRY TEACHING AND THE NATURE OF SCIENCE

Joan Wagner, STANYS

K- 12: General

Having a clear understanding of the nature of science is tantamount to effective inquiry teaching. This presentation will examine this and some effective inquiry strategies for the classroom. Handouts will be provided.

F-24 BaP KEY LEADER SHARE SESSION

Nancy Ridenour, Douglas Reynolds, and Rodney Doran, Building a Presence

K-12: General

BaP Key Leaders will have time to share ideas for: training Points of Contact; the next steps in training; networking with professional development opportunities; and the full use and potential of the electronic network.

F-25 DESIGN PROJECTS IN THE PHYSICS CLASSROOM

Sarah Collard, University at Buffalo/Sweet Home High School; Lisa Nastasi, Sweet Home High School

High School: MST, Physics, Research

We will co-present on our experiences using design projects in the physics classroom. We will talk about the implementation, use, and benefits of design projects from a research and practitioner perspective.

F-26 UNDERSTANDING ELECTROPHORESIS

Leo Palmero, Fisher Science Education

High School, College: General, Living Environment, Research

Teachers will use Fisher's Egel system to separate specially formulated electrophoretic dyes which simulate DNA fragments of different sizes.

F-27 USING ACTION RESEARCH TO INFORM CHEMISTRY INSTRUCTION

Thomas Shiland, Saratoga Springs High School

High School: Chemistry

The use of action research in the form of pre-instructional probes to measure understanding in Regents chemistry classes is presented.

F-28 ENCOURAGING SCIENCE INQUIRY - THE ASCEND PROGRAM

Stuart Charlip, Aileen Finneran, and Edward Petry, Heritage Junior High School

Intermediate, High School: General, Living Environment

Overview of NSF grant based afterschool research program in Natural and Physical Sciences for Junior High students.

F-32 and G-32 CHROMATOGRAPHY AND WATCH THEM GLOW

Sarjit Kaur, Vassar College; Michelle Rodder, SUNY- ULSTER; Mary Dey; Lynn Maelia, Mt. St. Mary College

K-12: Chemistry

This is a double workshop session involving F-32 and G-32. Participants must register for, and attend, BOTH workshops.

Students will use chromatography (paper) to separate mixtures of compounds, followed by detection (visual or under UV light). Chemiluminescence – watch solutions glow or change color when you shine light or shake them.

F-33 MIDDLE LEVEL LABS

Lauren Javitz, Cobleskill-Richmondville School District

Intermediate: Chemistry, Earth Science, Physics

Hands on demonstrations and labs for General Science, Chemistry, Physics and Earth Science. Participants will receive copies of each activity, including scientific explanations.

F-34 BEST PRACTICES FOR MENTORING STUDENT TEACHERS IN HIGH SCHOOL SCIENCE

Scott Robinson, David Rogers, Victoria Romanchik, Richard Taylor, Beth Stoll, and Patricia Moynihan, SUNY Brockport

Intermediate, High School: Living Environment, Chemistry, Physics

Come to this session to hear what student teachers have to say about effective mentoring in the standards-based science classroom.

Current President Harvey Wiener greets guests at the 2002 Welcoming Wine Reception

G-02 SCIENCE FAIRS: BUILDING A SUCCESSFUL EVENT

Mark Oleksak, Showboard, Inc.

K-12: General

A hands-on discussion workshop for science teachers who have minimal experience in planning and organizing a science fair. Free take home information will be handed out.

G-03 LIGHT AND COLOR: HANDS ON - MINDS ON DEMONSTRATION

Dwight Buzz Putnam, Whitesboro High School

Elementary, Intermediate, High School: Physics

See how easily reflection, refraction, color addition and subtraction, and diffraction may be taught. The Arbor Scientific Light Box will be utilized with lessons from the accompanying teacher's guide.

G-04 DIRTY BUSINESS! – TEACHING SOIL SCIENCE IN THE SCHOOLYARD

Wendy Nufer, Independent Educational consultant

Elementary, Intermediate: Living Environment, Earth Science, Environmental Science

This workshop is designed for the educator with little experience teaching soil ecology. Through several hands-on, cooperative and group activities (indoor/outdoor) and discussion, participants will gain much they can share with their students in the classroom/schoolyard. Activities include a micro-hike exploring life on the forest floor, erosion experiments, nature's recyclers, exploring how soil is made, soil core sampling and soil chemistry testing. Handouts will be provided.

G-05 THE VIRTUAL CHEMISTRY LAB COMPUTER SIMULATION

Dave Barnes, Arbor Scientific

Elementary, Intermediate, High School: Chemistry

Interactive, fun, virtual chemistry lab where students can create realistic experiments that couldn't be done in an actual lab. Free demo discs available.

G-06 GATHERING AND USING SENSOR DATA

Tom Barrowman, Pitsco

All: Elementary, MST, Physics

Design an experiment and gather data using Lego materials and Robolab software from National Instruments.

G-07 and F-07 USING NONFICTION IN PRIMARY CLASSROOMS: INTEGRATING SCIENCE AND LANGUAGE ARTS

Laura Lehtonen, Capital Region BOCES

Elementary: Elementary

This is a double workshop session involving F-07 and G-07. Participants must register for, and attend, BOTH workshops.

Experience practical strategies for using nonfiction in the classroom to develop science and language arts skills and content. Teacher and student resources will be shared.

G-08 BRING THE ENVIRONMENT TO YOUR CLASSROOM!

Tom Vitti, Nassau BOCES/Outdoor & Environmental Education

All: General, Environmental Science

Come and learn how to integrate Environmental Science and Ecology into your classes.

G-09 PLANTS, ARE THEY ELEMENTARY?

Fred Arnold and Thomas Bird, Elementary Science Program, Monroe 2 BOCES

Elementary: Elementary

Students have many ideas and misconceptions about plants. Explore how and why plants can be raised in the elementary grades. Handouts, brainstorming and more.

G-10 INTERACTIVE JAVA APPLETS FOR STUDENT USE

Christian Fracchia, Taconic Hills High School; Stu Leinoff, Adirondack Community College

High School: Physics

Participants will receive a CD of Physics Java Applets (Physlets) and instruction on how to use them. New topics for 2003 will include ESM, Waves, and Modern Physics.

G-11 GARDEN ADVENTURE SEEDS (SCIENCE EXPLORATION AND EDUCATION DISCOVERY SERIES)

Christina Colon, Jamie Boyer, and Donald Fulton, EdD, The New York Botanical Garden

Elementary: Elementary, Earth Science, Environmental Science

Teaching science can be fun with Garden Adventure SEEDS, a hands-on curriculum packed with inquiry-based classroom lessons that transform field trips into a powerful learning experience.

G-12 CAN YOU HANDLE IT? A SHOPPING BAG CHALLENGE

Gary Benenson, Jim Neujahr, and Camille Hall , City Technology, City College of New York; Carol Verrino, Lakeland-Copper Beech Middle School

K-12: Elementary, MST, Physics

Analyze ordinary shopping bags and their failure modes. Design handles to convert lunch bags to shopping bags then test them. Get curriculum and web resources.

G-13 INTEGRATING WEATHER INTO YOUR CLASSROOM

Linda Bryson, Laurelton-Pardee Intermediate

Intermediate, High School: Elementary, Earth Science

NASA S'COOL stands for Student Closed Observations On-Line. Students, in all grades, from all over the world, make weather observations, at specific times and submit them.

G-14 WHALES 101

Kristi Willis, Great Neck South Middle School

Intermediate, High School: General

Learn the basics of whale biology and ways to apply them to everyday lessons about anatomy and physiology and taxonomy. Includes personal photo-journal documenting two specific professional development programs available for teachers.

Newly inducted 2002 Fellows. Back row - President Mike Passow 2002, and presenters Uriel Goldsmith, Mary Marcinkowski, and Ray Snider; and Joanne Corey (Fellows Committee Chair) Front row - New Fellows of STANYS: Marilyn Reiner, Vivian Pokrzyk, and Larry Rand

G-21 and C-22 STUDENT MISCONCEPTIONS IN PHYSICAL SCIENCE

Kathleen Falconer, Dan MacIsaac, and Joseph Zawicki, Buffalo State College

Intermediate, High School, College: Chemistry, Earth Science, Physics

LINKED SESSION. This follow-up session to Recognizing Misconceptions (C-22) will present teaching strategies that address facilitating student discourse in the classroom promoting student conceptual reflection.

G-22 SUPERVISING STUDENT TEACHERS IN SECONDARY SCIENCE

Rodney Doran, University of Buffalo; Michael Hanophy, St. Joseph's College; Scott Robinson, SUNY Brockport; Kathy Lesniak, University at Buffalo

High School, College, Supervisory: Research, Supervision/Administration, College

The guidance provided for prospective science teachers addresses content, instruction, and interaction issues. Several panelists will describe procedures used at their compuses to stimulate discussion.

G-24 UNIVERSE & RETURN III. USING NASA AND OTHER SITES.

Marion O. Weaver, Steuben/Allegany BOCES (consultant)

K-12: Elementary, Earth Science, Physics

Activities, labs, links and tips will be shared for using sites even without Internet access in your classroom.

G-25 THE BEST OF THE DEMOS FROM THE NATIONAL CONFERENCE

Fred Pidgeon, Albany Academy; Penny Welbourn, Berne Knox Westerlo Central Schools

High School: Living Environment, Chemistry, Earth Science

We will present interesting demos from Chemistry, Biology and Earth Science we saw at the National Conference in Philadelphia.

G-26 GPS (SATELLITES + MAPS) = BIG FUN!

Anton Ninno, OCM BOCES; Jim Kuhl, Central Square Middle School; Jack Naravan, SUNY Oswego

Intermediate, High School, College, Retirees: General

Learn about the Global Positioning System, how to operate a GPS receiver, and try our cool student activities. We'll be outside, playing hide and seek.

G-28 SUPPORTING CONCEPTUAL AND QUANTITATIVE PROBLEM SOLVING USING TEXT AND TECHNOLOGY

Ed Waterman, Prentice Hall

High School: Chemistry

Join author and high school teacher Ed Waterman as he explores conceptual and quantitative problem solving in Chemistry using an innovative textbook and integrated technology.

G-32 and F-32 CHROMATOGRAPHY AND WATCH THEM GLOW

Sarjit Kaur, Vassar College; Michelle Rodder, SUNY- ULSTER; Mary Dey; Lynn Maelia, Mt. St. Mary College

K-12: Chemistry

This is a double workshop session involving F-32 and G-32. Participants must register for, and attend, BOTH workshops.

Students will use chromatography (paper) to separate mixtures of compounds, followed by detection (visual or under UV light). Chemiluminescence – watch solutions glow or change color when you shine light or shake them.

G-34 LABS, LABS AND MORE LABS

David Kowal, Holt Rinehart & Winston

Intermediate, High School: Living Environment, Earth Science, Environmental Science, Physics

Our Labbank resources include a variety of lab options that wow your students while building problem-solving skills, including Ecolabs, Inquiry Labs, Labs You Can Eat, Wiz-Bang demonstrations and Long-Term Projects.

G-37 ESTATE PLANNING & ELDER LAW: AVOIDING THE COMMON PLANNING MISTAKES

Michael Ettinger, The Ettinger Law Firm

Retirees: General

Powers of Attorney; Health Care Proxies and Living Wills; Revocable Living Trusts; Irrovocable Medicaid Trusts and Medicaid transfer rules; Long-Term Care Insurance; and IRA, 403 (b) planning.

2002 Presidential Award Finalists: Richard Kurtz, Carolyn Skoczylas, Scott Jordan, Daniel Brudos, and William Leacock, President Mike Passow 2002.

Gib Brown, Ausable Valley Middle School, explains weather phenomon during a 2002 workshop

Workshop Cross Reference List

Please refer to pages 10-33 for complete workshop descriptions.

KEY

Session No. **Audience**
Workshop Title

CHEMISTRY

X-03, Y-03 & Z-03 Triple **All**
Unlock the Secrets of Science

X-10, Y-10 & Z-10 Triple **HS**
Chemistry SARS Present

X-33 **I, HS**
Hands-On-Plastics: A Free Module from American Plastics Council

Y-28 **I, HS**
How to Prepare for the Polymer Detective Event

Y-34 **HS**
Active Chemistry/Active Physics: Physical Science Curriculum

Z-05 **HS, Col**
DNA Fingerprinting Kit

Z-28 **I, HS**
How to Prepare for the Can't Judge a Powder Event

Z-33 **I**
Science Literacy and Language Literacy - A Two-Way Street

A-04 **K-12**
Bubbleology

A-07 **HS**
Another 4 Chemistry Labs

B-07 **I, HS**
The Science of Foods; High School Science Teachers Workshop

B-10 **El, I, HS, Col**
Polymers 101. Plastics and Other Neat Stuff

B-37 & C-37 Double **HS, Ret**
Project Watershed: A Water Quality Education Opportunity

C-07 **All**
Repair and Maintenance of Microscopes, Balances and Other Lab Equipment

C-09 or E-09 Repeat **HS, Col**
Acquire and Analyze Scientific Concepts in Real Time

C-10 **El, I, HS, Col**
Polymers 201. Unique Properties of Plastics and Other Neat Stuff

C-23 **HS**
Chemistry Teachers' Club of New York Presents

C-24 **HS**
Lessons From Making Biodiesel in Your Lab

D-10 **El, I, HS, Col**
Polymers 301. Why Don't We Recycle More Plastics, Anyway??

D-11 **I, HS**
An Introduction to the TI-83+ for Secondary Science

D-12 **HS**
What is Your Cosmic Connection to the Elements?

D-13 **I, HS**
Easy & Simple Demos & Labs

E-02 **HS**
Chemistry Breakfast

E-04 **HS**
Motivational Strategies

E-13 **HS**
Anatomy of the Funnybone II: Integration of Humor and Science Education

F-27 **HS**
Using Action Research to Inform Chemistry Instruction

F-32 & G-32 Double **K-12**
Chromatography and "Watch Them Glow"

F-33 **I**
Middle Level Labs

F-34 **I, HS**
Best Practices for Mentoring Student Teachers in High School Science

G-05 **El, I, HS**
The Virtual Chemistry Lab Computer Simulation

G-21 & C-22 Linked **I, HS, Col**
Student Misconceptions in Physical Science

G-25 **HS**
The Best of the Demos From the National Conference

G-28 **HS**
Supporting Conceptual and Quantitative Problem Solving Using Text and Technology

COLLEGE

X-24 **All**
Action Research for New York Science Teachers

Y-06 **Col**
Alternative Routes to Certification for Teaching Science

Y-14 **All**
Funding Opportunities for Science Education

A-21 **El, I, Col, Sup**
Elementary Science Methods Courses

G-22 **HS, Col, Sup**
Supervising Student Teachers in Secondary Science

EARTH SCIENCE

X-03, Y-03 & Z-03 Triple **All**
Unlock the Secrets of Science

X-08, Y-08 & Z-08 Triple **HS**
Delightful Discussions Devoted to "D"

X-12 **HS, Col**
Graphical Forecast Preparation Techniques

X-23 **All**
"Oh, the Places You Can Go" with Science and Literature

Y-32 **I, HS**
How to Prepare for the Road Scholar Event

Z-12 **K-12**
Engaging Students in NASA's Sun-Earth Connection

Z-32 **I, HS**
How to Prepare for the From A Distance Event

Z-34 **I, HS**
Earthcomm and Investigating Earth Systems: Inquiry-Based Curricula for High School and Middle School

A-09 **HS**
Across the Board Assessment

A-13 **I, HS, Col**
Utilizing the Shawangunk Mountains for Earth and Environmental Field Expeditions

A-14 **HS**
Chandra and the X-Ray Universe

A-32 & B-32 Double **HS**
Foram Fun

A-34 & B-34 Double **I, HS**
Sun & Shadows: Integrated MST Performance Assessment

B-04 **All, K-12**
Introduction to Project Learning Tree

B-06 **All**
Geology and Mystical/Unique Places On Earth!

B-14 **HS**
Cool Science: Glaciers and Canadian Rockies

B-22 **HS**
Earth Science Ideas and Initiatives From the NYS Listserv

B-23 **I, HS**
The Ensemble Method of Weather Forecasting

B-37 & C-37 Double **HS, Ret**
Project Watershed: A Water Quality Education Opportunity

C-02 **I, HS**
Cache-Ing in with Rocks and Acorns

C-05 **HS**
Prepare for New Earth Science Performance Exam Using Glencoe's Textbook

C-08 **I, HS**
Vocabulary Challengers: An Exciting Way to Teach Students Science Vocabulary.

C-32 **EL, I**
"Reach for the Stars" to Teach Math, Science, and Technology

D-07 **All**
Digital/Video Microscopy

D-09 **I**
Unlock the Secrets of Science

D-11 **I, HS**
An Introduction to the TI-83+ for Secondary Science

D-14 **All**
Mastodonts in the Muck

D-24 **HS**
Earth Science: Share-A-Thon

E-23 **I, HS, Col**
Radio Astronomy and the NASA Student Observation Network

E-33 **HS**
Willow Biomass: An Alternative Energy Source

E-36 **HS**
Earth Science Breakfast

F-02 **All**
The Matrix Project

F-08 **All**
Teaching Science with the Jason Project

F-13 **EL, I, HS, Col**
Regional and Local Geology: Concrete Examples for Your Curricula

F-15 **K-12**
Earth Science Rock Swap

F-33 **I**
Middle Level Labs

G-04 **EL, I**
Dirty Business! - Teaching Soil Science in the Schoolyard

G-11 **EL**
Garden Adventure Seeds (Science Exploration and Education Discovery Series)

G-13 **I, HS**
Integrating Weather Into Your Classroom

G-21 & C-22 Linked **I, HS, Col**
Student Misconceptions in Physical Science

G-24 **K-12**
Universe & Return III. Using NASA and Other Sites.

G-25 **HS**
The Best of the Demos From the National Conference

G-34 **I, HS**
Labs, Labs and More Labs

ELEMENTARY

X-02 **EL**
Something Special

X-11, Y-11 & Z-11 Triple **EL**
Make and Take Elementary Science Activities

X-14 **EL**
Help, How Can I Teach Science with Everything I Have to Do?

Y-12 **El, I, Col**
Elementary Students Ideas About the Path of Electricity

Z-06 **All, EL, I, Sup**
In Elementary School Science You Don't Teach Kits

Z-29 **EL**
Kindersci Technology Integration Project for Primary Level Science

A-05 **I, Sup**
Inquiry and Standards Based Middle School Science From Premier

A-08 **EL**
Teaching Environmental Education Through the Elementary Science Standards

A-15 **EL**
Preparing for the New State ELS Test

A-21 **El, I, Col, Sup**
Elementary Science Methods Courses

B-08 **EL**
The Bat Kit

B-10 **El, I, HS, Col**
Polymers 101. Plastics and Other Neat Stuff

B-15 **EL**
Preparing for the Elementary Science Performance Test

C-04 **EL, I**
Innovative Ideas

INTENDED AUDIENCE
Col-college, El-elementary, HS-high school, I-intermediate, Sup-supervision

Workshop Cross Reference List

Please refer to pages 10-33 for complete workshop descriptions.

C-08 **I, HS**
Vocabulary Challengers: An Exciting Way to Teach Students Science Vocabulary.

C-10 **EI, I, HS, Col**
Polymers 201. Unique Properties of Plastics and Other Neat Stuff

C-32 **EL, I**
"Reach for the Stars" to Teach Math, Science, and Technology

D-03 **All**
Problem Solving Activities for All Ages

D-05 **I**
The Winning Ways of Willows

D-10 **EI, I, HS, Col**
Polymers 301. Why Don't We Recycle More Plastics, Anyway??

D-27 **EL**
Living It Up! How to Use Wildlife to Enhance Students' Science Learning

D-34 **EL**
Insects - Living Environment Study in the Elementary Classroom

E-06 **EL, I**
Initiative Games - Actively Building A Cooperative Classroom

E-11 **EL**
Using Nature Crafts to Meet the Nys Science/MST Standard

E-12 **All**
Meet State Standards Using Technology You'll Love Proscope... (Digital Microscope)

F-02 **All**
The Matrix Project

F-07 & G-07 Double **EL**
Using Nonfiction in Primary Classrooms: Integrating Science and Language Arts

F-08 **All**
Teaching Science with the Jason Project

F-14 **EI, I, Col**
Magnetic Moments: 5EZ Steps to Enhance Elementary Science

F-15 **K-12**
Earth Science Rock Swap

G-06 **All**
Gathering and Using Sensor Data

G-09 **EL**
Plants, Are They Elementary?

G-11 **EL**
Garden Adventure Seeds (Science Exploration and Education Discovery Series)

G-12 **K-12, EI, I**
Can You Handle It? A Shopping Bag Challenge

G-13 **I, HS**
Integrating Weather Into Your Classroom

G-24 **K-12**
Universe & Return III. Using NASA and Other Sites.

ENVIRONMENTAL SCIENCE

X-07 **HS**
Science Research in HS: Flies, Worms and Bears - Oh My!

X-12 **HS, Col**
Graphical Forecast Preparation Techniques

Z-34 **I, HS**
Earthcomm and Investigating Earth Systems: Inquiry-Based Curricula for Middle and High School

A-13 **I, HS, Col**
Utilizing the Shawangunk Mountains for Earth and Environmental Field Expeditions

A-26 **I, HS**
Name That Organism... Using A Dichotomous Key

B-06 **All**
Geology and Mystical/Unique Places On Earth!

B-10 **EI, I, HS, Col**
Polymers 101. Plastics and Other Neat Stuff

B-33 **I, HS**
Field Explorations in Environmental Science

B-37 & C-37 Double **HS, Ret**
Project Watershed: A Water Quality Education Opportunity

C-03 **I, HS**
6.3 Billion Reasons to Build Population Literacy

C-10 **EI, I, HS, Col**
Polymers 201. Unique Properties of Plastics and Other Neat Stuff

D-05 **I**
the Winning Ways of Willows

D-07 **All**
Digital/Video Microscopy

D-09 **I**
Unlock the Secrets of Science

D-10 **EI, I, HS, Col**
Polymers 301. Why Don't We Recycle More Plastics, Anyway??

E-11 **EL**
Using Nature Crafts to Meet the NYS Science/MST Standard

E-33 **HS**
Willow Biomass: An Alternative Energy Source

F-08 **All**
Teaching Science with the Jason Project

G-04 **EL, I**
Dirty Business! - Teaching Soil Science in the Schoolyard

G-08 **All**
Bring the Environment to Your Classroom!

G-11 **EL**
Garden Adventure Seeds (Science Exploration and Education Discovery Series)

G-34 **I, HS**
Labs, Labs and More Labs

FORENSIC

Y-07 **HS, Sup**
Setting Up A Forensic Science Program in the High School Setting

GENERAL

X-01, Y-01 & Z-01 Triple **I, HS, Col**
Hands-On Data Collection Your Way, with Vernier Labpro®

X-02 **EL**
Something Special

X-05 **I, HS, Col**
PGLO Bacterial Transformation and Protein Purification Kits

X-09, Y-09 & Z-09 Triple **I**
Intermediate Level SAR Sunday Showcase

X-26 **I, HS**
How to Prepare for the Experimental Design Event

X-29 & Y-29 Double **I**
NYSUT Middle School Inquiry Activities and SED Updates

X-37 **I, HS**
How to Prepare for the Picture This Event

Y-02 **All**
MST Under the Water of Lake Ontario

Y-24 **I, HS, Col**
Sup
Evolution in the Science Classroom: the Challenge and Controversy

Y-33 **I**
The National Science Education Inquiry Standard in the Intermediate Classroom

Y-37 **I, HS**
How to Prepare for the Sound of Music Event

Z-02 **All**
Motivate Students and Increase Learning with This Revolutionary Interactive Response

Z-14 **All**
Nutrition Update

Z-29 **EL**
Kindersci Technology Integration Project for Primary Level Science

Z-33 **I**
Science Literacy and Language Literacy - A Two-Way Street

A-01 **I, HS, Col**
Science Data Collection with Palm OS® Handhelds

A-03 **All**
Put Some Active Into Problem Solving Activities

A-04 **K-12**
Bubbleology

A-05 **I, Sup**
Inquiry and Standards Based Middle School Science From Premier

A-06 **All, Ret**
Elderhostel Experiences May Be for You

A-09 **HS**
Across the Board Assessment

A-11 **All**
Try Out the Newest Technology From TI

A-14 **HS**
Chandra and the X-Ray Universe

A-23 **All**
How to Conduct Archaeology Day At Your School

A-24 **All, Sup**
Classroom Design Based on the State and National Teaching Standards

A-25 **All**
Writing Articles for the Science Teachers Bulletin

A-26 **I, HS**
Name That Organism... Using a Dichotomous Key

A-28 **EI, I, HS**
Nylearns.org

A-29 & B-29 Double **All**
Hands On Image Processing Using the Flexible Camera Series Curriculum Guide

A-33 **K-12**
Science Kit Presents: Teacher Developed Products

A-34 & B-34 Double **I, HS**
Sun & Shadows: Integrated MST Performance Assessment

B-01 **I, HS, Col**
Science Data Collection with Texas Instruments Handhelds

B-06 **All**
Geology and Mystical/Unique Places On Earth!

B-07 **I, HS**
The Science of Foods; High School Science Teachers Workshop

B-09 **EL, I**
Fun with Forces

B-11 **All**
What's 'App'ening at TI?

B-14 **HS**
Cool Science: Glaciers and Canadian Rockies

B-15 **EL**
Preparing for the Elementary Science Performance Test

B-21 **ALL**
New York Teacher Researcher Symposium

B-23 **I, HS**
The Ensemble Method of Weather Forecasting

B-24 **I**
www.webquests.middleschoolscience.com

B-25 & C-25 Double **I, HS**
New York State Science Olympiad Site Coordinators Meeting

B-27 & C-27 Double **All**
50 Classic Gems in the Literature of Science

C-02 **I, HS**
Cache-Ing in with Rocks and Acorns

C-03 **I, HS**
6.3 Billion Reasons to Build Population Literacy

C-04 **EL, I**
Innovative Ideas

C-06 **K-12**
Voice Your Concerns to the Consortium

C-07 **All**
Repair and Maintenance of Microscopes, Balances and Other Lab Equipment

C-11 **EL**
Planting New Idea Thought Inquiry

C-14 **K-12**
BAP Section Liaison Share/Update

C-15 & D-15 Double **K-12**
Update From SED

C-21 **All**
Online Education with Blackboard.com

INTENDED AUDIENCE
Col-college, EI-elementary, HS-high school, I-intermediate, Sup-supervision

Workshop Cross Reference List

Please refer to pages 10-33 for complete workshop descriptions.

C-22 & (D-22, or E-21, or F-22 or G-21) Linked **All**
Recognizing Misconceptions – Session #1

C-33 **HS, Col**
HIV Testing

C-34 **HS**
New York State Science Honor Society: An Adjunct to Your HS Science Program

D-01 **I, HS, Col**
Science Data Collection with Computers

D-02 **All**
Tools for Analyzing Assessments

D-03 **All**
Problem Solving Activities for All Ages

D-06 **Sup**
Share-A-Thon for Science Education Leaders

D-07 **All**
Digital/Video Microscopy

D-14 **All**
Mastodonts in the Muck

D-23 **I**
Division B Science Olympiad Coaches Information Meeting

D-25 **El, I, HS**
Science Olympiad New Coach's Information Meeting

D-28 **HS**
Teaching Science Through Literacy and Vice Versa

D-29 **HS**
Division C Science Olympiad Coach's Information Meeting

D-31 **HS, Col**
Keypads: Kinder Gentler Testing

E-04 **HS**
Motivational Strategies

E-06 **EL, I**
Initiative Games - Actively Building A Cooperative Classroom

E-07 **I, HS, Col, Sup**
Navigator - A Wireless TI-83+ Classroom that Even Does the Item Analysis!

E-10 **I, HS**
Demo Time! Learning and Having Fun with Physics

E-12 **All**
Meet State Standards Using Technology You'll Love Proscope... (Digital Microscope)

E-13 **HS**
Anatomy of the Funnybone II: Integration of Humor and Science Education

E-14 **I**
Note Taking in the Middle School Science Class

E-22 **All**
Elementary Science Students' Journals Enhance Scientific Literacy

E-24 **K-12**
BAP Points of Contact

E-26 **I**
SARS: the Mystery Unfolding

E-27 **All**
Toyota Tapestry Grants for Teachers = $$$

E-32 **All**
Land of the Rising Sun: Be A Fulbright Memorial Fellow (FMF)!

E-35 **All**
Using MS Office to Teach Science

F-01 **All, EL, I, HS**
Jump-Starting Students with Inquiry Activities

F-02 **All**
The Matrix Project

F-10 **I, HS**
New Technology for Science Classrooms

F-11 **HS**
And Now for Something Completely Different... The International Baccalaureate Science

F-12 **All**
In the Realm of Large Numbers How Do We Know?

F-15 **K-12**
Earth Science Rock Swap

F-21 **All**
An Alliance Model of Professional Development

F-23 **All**
Inquiry Teaching and the Nature of Science

F-24 **K-12**
BAP Key Leader Share Session

F-26 **HS, Col**
Understanding Electrophoresis

F-28 **I, HS**
Encouraging Science Inquiry - the Ascend Program

G-02 **K-12**
Science Fairs: Building A Successful Event

G-08 **All**
Bring the Environment to Your Classroom!

G-14 **I, HS**
Whales 101

G-26 **I, HS, Col, Ret**
GPS (Satellites + Maps) = Big Fun!

G-37 **Ret**
Estate Planning & Elder Law: Avoiding the Common Planning Mistakes

LIVING ENVIRONMENT

X-03, Y-03 & Z-03 Triple **All**
Unlock the Secrets of Science

X-07 **HS**
Science Research in HS: Flies, Worms and Bears - Oh My!

X-21, Y-21 & Z-21 Triple **HS**
The Four Required Living Environment Labs

X-27 & Y-27 Double **HS, Col**
Measuring Behavior

Y-05 **I, HS, Col**
Genes in a Bottle Kit

Y-23 & Z-23 Double **HS**
Physics Meets Molecular Biology

Y-24 **I, HS, Col, Sup**
Evolution in the Science Classroom: the Challenge and Controversy

Y-33 **I**
The National Science Education Inquiry Standard in the Intermediate Classroom

Z-05 **HS, Col**
DNA Fingerprinting Kit

Z-07 **HS**
A Little Exercise Physiology, Anyone?

Z-23 & Y-23 Double **HS**
Nanotechnology: Molecular Imaging

A-04 **K-12**
Bubbleology

A-26 **I, HS**
Name That Organism... Using a Dichotomous Key

A-29 & B-29 Double **All**
Hands On Image Processing Using the Flexible Camera Series Curriculum Guide

A-32 & B-32 Double **HS**
Foram Fun

A-36 **HS**
Biology Breakfast - Celebrating 50 Years of the Double Helix

B-04 **All K-12**
Introduction to Project Learning Tree

B-08 **EL**
The Bat Kit

B-26 **HS**
Making Connections - A Required Living Environment Lab

B-28 **HS**
Teaching with Technology: Lessons Learned From an NSF-Funded Pilot Program

C-02 **I, HS**
Cache-Ing in with Rocks and Acorns

C-07 **All**
Repair and Maintenance of Microscopes, Balances and Other Lab Equipment

C-26 **HS**
Beaks of Finches - A Required Living Environment Lab

C-28 **HS**
Integrating Part D Into the Biology Classroom

C-29 **K-12**
Easy Observing of Protist with A Flexcam

C-33 **HS, Col**
HIV Testing

D-04 **I, HS**
Teaching the Living Environment in A Dynamic Classroom

D-09 **I**
Unlock the Secrets of Science

D-11 **I, HS**
An Introduction to the TI-83+ for Secondary Science

D-22 **I, HS, Col**
Student Misconceptions in Chemistry

D-26 **HS**
Diffusion Through A Membrane - A Required Living Environment Lab

D-28 **HS**
Teaching Science Through Literacy and Vice Versa

D-34 **EL**
Insects - Living Environment Study in the Elementary Classroom

E-01 **HS**
Virtually Foolproof: Supplementing Animal Dissection

E-04 **HS**
Motivational Strategies

E-05 **HS**
Relationships and Biodiversity - Required Living Environment Lab

E-12 **All**
Meet State Standards Using Technology You'll Love Proscope... (Digital Microscope)

E-13 **HS**
Anatomy of the Funnybone II: Integration of Humor and Science Education

E-21 & C-22 Linked **El, I, Col**
Student Misconceptions in Elementary Science

E-26 **I**
SARS: the Mystery Unfolding

F-02 **All**
The Matrix Project

F-05 **HS**
The Circle of Life - A Game of Coevolution

F-22 & C-22 Linked **I, HS, Col**
Student Misconceptions in the Living Environment

F-26 **HS, Col**
Understanding Electrophoresis

F-28 **I, HS**
Encouraging Science Inquiry - The Ascend Program

F-34 **I, HS**
Best Practices for Mentoring Student Teachers in High School Science

G-04 **EL, I**
Dirty Business! - Teaching Soil Science in the Schoolyard

G-25 **HS**
The Best of the Demos From the National Conference

G-34 **I, HS**
Labs, Labs and More Labs

MATH, SCIENCE AND TECHNOLOGY

X-15, Y-15 or Z-15 Triple **I, HS**
Flight and Flight Rog

X-28 **I, HS**
How to Prepare for the Tower Building Event

Y-12 **El, I, Col**
Elementary Students Ideas About the Path of Electricity

Y-26 **I, HS**
How to Prepare for Robo Billiards

Z-24 **I, HS**
How to Prepare for Storm the Castle

Z-26 **I, HS**
Robot Ramble

Z-27 **I, Col**
Foundation Supporting Fisher-Jefferson Partnership

Z-29 **EL**
Kindersci Technology Integration Project for Primary Level Science

INTENDED AUDIENCE
Col-college, El-elementary, HS-high school, I-intermediate, Sup-supervision

Workshop Cross Reference List

Please refer to pages 10-33 for complete workshop descriptions.

Z-37 **I, HS**
How to Prepare for the Bottle Rocket Event

A-04 **K-12**
Bubbleology

A-12 **I**
Integrating the Middle School Math and Science Curricula

A-27 **I**
NASA Earth to Orbit Engineering Design Challenge Thermal Protection System

A-28 **EI, I, HS**
Nylearns.org

A-29 & B-29 Double **All**
Hands On Image Processing Using the Flexible Camera Series Curriculum Guide

A-34 & B-34 Double **I, HS**
Sun & Shadows: Integrated MST Performance Assessment

B-03 **I, Col**
Measuring Metric

B-21 **ALL**
New York Teacher Researcher Symposium

B-37 & C-37 Double **HS, Ret**
Project Watershed: A Water Quality Education Opportunity

C-13 **HS**
HERA: A Space Science Analysis System for Students

C-32 **EL, I**
"Reach for the Stars" to Teach Math, Science, and Technology

D-05 **I**
The Winning Ways of Willows

D-08 **HS**
Cloud Chambers and Cosmic Rays

D-12 **HS**
What is Your Cosmic Connection to the Elements?

E-08 **HS**
Exploring Particle Physics Through Games

E-11 **EL**
Using Nature Crafts to Meet the NYS Science/MST Standard

E-21 & C-22 Linked **EI, I, Col**
Student Misconceptions in Elementary Science

E-28 **I, HS**
Displaying GPS Data in A GIS Project

E-33 **HS**
Willow Biomass: An Alternative Energy Source

F-25 **HS**
Design Projects in the Physics Classroom

G-06 **All**
Gathering and Using Sensor Data

G-12 **K-12, EI, I**
Can You Handle It? A Shopping Bag Challenge

PHYSICS

X-12 **HS, Col**
Graphical Forecast Preparation Techniques

X-13 **HS, Col**
Physics Sunday Showcase, Session X Using Assessments As Tools for Improving Instruction

Y-12 **EI, I, Col**
Elementary Students Ideas About the Path of Electricity

Y-13 **HS, Col**
Physics Sunday Showcase, Session Y - Nature of Light: Simple Demos: DC Circuits

Y-23 & Z-23 Double **HS**
Physics Meets Molecular Biology

Y-34 **HS**
Active Chemistry/Active Physics: Physical Science Curriculum

Z-13 **HS, Col**
Physics Sunday Showcase Session Zusing Video in the Science Classroom

Z-23 & Y-23 Double **HS**
Nanotechnology: Molecular Imaging

A-02 **HS**
Physics Breakfast Presentation Rtop: A Tool for Reflective Practice

A-04 **K-12**
Bubbleology

A-14 **HS**
Chandra and the X-Ray Universe

B-02 **HS**
Update On Issues Surrounding the Physics Exam

B-09 **EL, I**
Fun with Forces

B-12 & C-12 Double **HS**
What Meets the Eye

B-13 **EI, I, HS**
The Best New Physics Software

C-09 or E-09 Repeat **HS, Col**
Acquire and Analyze Scientific Concepts in Real Time

C-12 & B-12 Double **HS**
Is the Light Fantastic?

D-05 **I**
The Winning Ways of Willows

D-08 **HS**
Cloud Chambers and Cosmic Rays

D-12 **HS**
What is Your Cosmic Connection to the Elements?

D-13 **I, HS**
Easy & Simple Demos & Labs

D-21 **HS**
Celebrating 30 Great Years at STANYS!

E-03 **EI, I, HS**
Air Powered Projectile: A Fun Safe, "Rocket" Lab for Teaching Projectile Motion

E-08 **HS**
Exploring Particle Physics Through Games

E-10 **I, HS**
Demo Time! Learning and Having Fun with Physics

E-21 & C-22 Linked **EI, I, Col**
Student Misconceptions in Elementary Science

E-23 **I, HS, Col**
Radio Astronomy and the NASA Student Observation Network

E-25 **HS, Col**
Graphing Calculator (TI-83) Physics

F-03 **EI, I, HS**
Cool Tools for Sound & Waves

F-06 **HS**
Everything A First Year Physics Teacher Needs to Know (But No One Tells You).

F-25 **HS**
Design Projects in the Physics Classroom

F-33 **I**
Middle Level Labs

F-34 **I, HS**
Best Practices for Mentoring Student Teachers in High School Science

G-03 **EI, I, HS**
Light and Color: Hands On - Minds On Demonstration

G-06 **All**
Gathering and Using Sensor Data

G-10 **HS**
Interactive Java Applets for Student Use

G-12 **K-12, EI, I**
Can You Handle It? A Shopping Bag Challenge

G-21 & C-22 Linked **I, HS, Col**
Student Misconceptions in Physical Science

G-24 **K-12**
Universe & Return III. Using NASA and Other Sites.

G-34 **I, HS**
Labs, Labs and More Labs

RESEARCH

X-05 **I, HS, Col**
PGLO Bacterial Transformation and Protein Purification Kits

X-07 **HS**
Science Research in HS: Flies, Worms and Bears - Oh My!

X-24 **All**
Action Research for New York Science Teachers

X-27 & Y-27 Double **HS, Col**
Measuring Behavior

Y-14 **All**
Funding Opportunities for Science Education

Y-06 **Col**
Alternative Routes to Certification for Teaching Science

Y-12 **EI, I, Col**
Elementary Students Ideas About the Path of Electricity

Y-24 **I, HS, Col, Sup**
Evolution in the Science Classroom: the Challenge and Controversy

A-29 & B-29 Double **All**
Hands On Image Processing Using the Flexible Camera Series Curriculum Guide

B-21 **ALL**
New York Teacher Researcher Symposium

C-13 **HS**
HERA: A Space Science Analysis System for Students

C-32 **EL, I**
"Reach for the Stars" to Teach Math, Science, and Technology

D-02 **All**
Tools for Analyzing Assessments

D-08 **HS**
Cloud Chambers and Cosmic Rays

E-08 **HS**
Exploring Particle Physics Through Games

F-14 **EI, I, Col**
Magnetic Moments: 5EZ Steps to Enhance Elementary Science

F-25 **HS**
Design Projects in the Physics Classroom

F-26 **HS, Col**
Understanding Electrophoresis

G-22 **HS, Col, Sup**
Supervising Student Teachers in Secondary Science

SUPERVISION/ ADMINISTRATION

X-24 **All**
Action Research for New York Science Teachers

Y-06 **Col**
Alternative Routes to Certification for Teaching Science

Y-07 **HS, Sup**
Setting Up a Forensic Science Program in the High School Setting

Z-06 **All, EL, I, Sup**
In Elementary School Science You Don't Teach Kits

Z-27 **I, Col**
Foundation Supporting Fisher-Jefferson Partnership

A-05 **I, Sup**
Inquiry and Standards Based Middle School Science From Premier

A-21 **EI, I, Col, Sup**
Elementary Science Methods Courses

A-24 **All, Sup**
Classroom Design Based On the State and National Teaching Standards

A-28 **EI, I, HS**
Nylearns.org

A-36 **HS**
Biology Breakfast - Celebrating 50 Years of the Double Helix

D-02 **All**
Tools for Analyzing Assessments

D-06 **Sup**
Share-A-Thon for Science Education Leaders

F-04 **Sup**
Science Supervisors - Let's Talk!

F-21 **All**
An Alliance Model of Professional Development

G-22 **HS, Col, Sup**
Supervising Student Teachers in Secondary Science

INTENDED AUDIENCE
Col-college, EI-elementary, HS-high school, I-intermediate, Sup-supervision

November 2 - 4, 2003

STANYS 108th Annual Conference & General Meeting

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