



!
Iowa Science Teachers Section of the Iowa Academy of Science

!

November 30, 2005

Nadine Weirather, Editor

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Contents of the ISTS e-newsletter that follows:

- NOTES FROM YOUR PRESIDENT
- VIP MESSAGE
IAS EXECUTIVE DIRECTOR
- ISTS NEWS
NEW SECTION CHAIRS
FALL CONFERENCE NEWS
- ANNOUNCEMENTS
- YOUR ISTS LEADERSHIP TEAM

A Message from your President:

Professional Development That Teachers Want

Professional development is an often heard phrase in teaching. Unfortunately, because school-based professional development is too often irrelevant to improving

science teaching practice and forced upon teachers in a manner that is anything but professional, it rarely arouses a positive response from teachers or improves teaching practices. In contrast, this fall's Iowa Science Teachers Conference was attended by over 450 teachers who eagerly chose from sessions that included research and experienced-based approaches to improving science teaching and learning. Many thanks go to Jeff Weld for the superb job he did in coordinating the entire conference and also serving as the facilities coordinator. The following individuals also selflessly gave their time and expertise:

Lyn Countryman, Conference Program
Tom Ervin, Awards and Conference Photographer
Barb Jacobson, Exhibits Coordinator
Jeanne Rogis, Bookstore Coordinator
Ernie and Cheryl Schiller, Decorations
Aaron Spurr, Registration Coordinator
Rick Wells, Corporate Sponsors Coordinator

Another way that ISTS promotes the continual development of professional science teachers is through its electronic *Iowa Science Teachers Journal (ISTJ)*. The fall issue will soon be available and it is filled with ideas for promoting effective science teaching practices and desired learning outcomes. *ISTJ* can be accessed at the Iowa Science Teachers Section URL <http://ists.pls.uni.edu/> As a reminder, the summer and fall 2005 issues are available free to anyone, but beginning in 2006, only members of ISTS will be able to access *ISTJ*. So please renew your membership to ISTS so that you can continue receiving this excellent publication, and tell your colleagues that they now have another reason for joining ISTS.

Finally, if you presented at this fall's ISTS conference, or if you do something in your science classroom that really engages students in learning science (and I know you do), submit your idea to the *ISTJ* managing editor (contact information is available at the ISTS website). The *ISTJ* editor and managing editor will help guide you through the writing and submission process. We really want to see your ideas in print, so be a positive contributor to professional development and submit an article to *ISTJ*!

Sincerely,

Michael Clough, ISTS President '05-06

VIP Message...

...from the Executive Director:

First of all, I'd like to thank you for supporting the Iowa Academy of Science and the Iowa Science Teachers Section. Your membership makes a strong statement about your support for science in Iowa.

Congratulations on the successful ISTS Fall Conference in Des Moines. I enjoyed meeting many teachers from across Iowa and heard many fine compliments about the informative presentations. If this conference has not been on your schedule please consider attending the next one. Your participation in IAS and ISTS events and on professional committees has an impact on the direction and success of the IAS mission to advance science research, science education and the public understanding of science in Iowa.

Changes are coming to science education in Iowa. The IAS will have an opportunity to play a significant role through partnerships with other organizations, Academy programs, and the Iowa Junior Academy of Science. We value your input and participation as we move forward.

Our website has been upgraded and more improvements are on the way. The ISTS Journal is online and your participation will make this publication a success. The members-only addition to the IAS website has added features and includes the 2005-2006 IAS Membership Directory and a link to the ISTS website. Please see the fall mailing for more information.

Finally, this is renewal time for your IAS membership. Please review all of the materials in the fall mailing and pay close attention to nominations for awards and the instructions for accessing the website. Tell your colleagues about IAS and ISTS and encourage them to join our growing membership. Our referral program remains in place for 2006. You will receive \$10 off your dues for 2007 for each new member (up to 6) that joins at your referral in 2006.

Thank you for your support of science.

Craig Johnson
IAS Executive Director

ISTS NEWS

- **New Section Chairs for ISTS**

We welcome **De Anna Tibben** as the new Earth Science Chair. De Anna is from Ames High School. The school phone number is 515-817-0600 and her email is <dtibben@ames.k12.ia.us>. (See De Anna's announcement below.)

Another welcome goes to **Lynne Campbell**, the new Elementary Science Chair. Lynn teaches at Woodward-Granger Middle School. Her phone number is 515-438-4653 and her email is <lcampbell@woodward-granger.k12.ia.us>.

And, welcome to a new job at ISTS, **Sara Coleman**! Sara is now the Chemistry Chair. She teaches at Norwalk High School and can be reached at 515-981-4201 or email <scoleman@norwalk.k12.ia.us>.

Your section chairs are ready to lead discussions and help any way they can. Thanks to them for filling these volunteer positions!

- **Fall Conference a Success (and loads of fun, too!)**

Registration was up 12% from 2004!!!

A huge thank you goes to these loyal ISTS Fall Conference Sponsors:

**Anderson-Erickson Dairy
Hach Company
Iowa Space Grant Consortium
Maytag of Newton, Iowa
Scope Shoppe, Inc.
Rockwell Collins**

- *Congratulations and thanks to....*



the Scope Shoppe, Inc.

The 2005 ISTS Corporate Friend of Science award went to The Scope Shoppe for their many, many years of support for the ISTS Fall Conference. Mr. Mike Schlinder accepted the award from Tom Ervin, our awards coordinator.



The 2005 ISTS Individual Friend of Science award was given posthumously to Dr. Charles Drewes.

Standing on the shoulder of a giant...



an ISTS Lifetime Distinguished Service Award was given to Dr. Robert E. Yeager.

- **See the end of this newsletter for some other great conference photos taken by our designated photographer, Tom Ervin.**

Announcements:

- [A Message from an Iowa Friend:](#)

My name is Brian Wansink and I am a professor (at Cornell University in New York) who conducts social science research relevant to food and consumers. I'm also an Iowa native from Sioux City, who has a tremendously deep affection for the state and for the education I received there.

I don't know if Science Fairs are still big in parts of Iowa, but I wanted to do

something (even if small) to help give encouragement to primary or secondary students who are interested in projects dealing with nutrition, food, and consumers.! My idea was to use the modest royalties from my book sales to start a non-profit foundation (Wansink Consumer Education Foundation) which gave small awards (\$25-\$100 + a certificate) that helped students pay the expenses (generally food, a scale, paper, etc.) involved in such projects.

! Because we are a very tiny foundation, we wanted to focus our attention on Iowa schools.! When I saw that you had started the newsletter and that it was going to go only to IAS members, I thought this might be something that would be of interest to your readers. I've attached a little more about the awards below:

The Consumer Education Foundation offers a limited number of small expense-related awards to elementary and secondary Iowa students who are conducting school-based projects aimed at helping make people smarter when it comes to food and to shopping choices. Science Fair Awards are typically in the range of \$25-75 and the projects are related to science fairs; nutrition-related school projects.

Applications for expense-related awards are evaluated on a continuous basis. Requests for expense-related research awards should include the purpose and methodology of the study. In addition, it should be emphasized how and to whom the findings will be communicated. When possible, requests will be processed within 48 hours of receipt.

Applications for expense-related scholarships are accepted in hard-copy (mail or fax), and should be addressed to:

Jennifer Wansink, Director
Wansink Consumer Education Foundation
330 The Parkway
Ithaca, NY 14850
Fax: 607-319-0570

- **RAINFOREST WORKSHOPS, SERVICE LEARNING IN THE AMAZON**

Here are two exciting ways for teachers and environmental educators to travel to the Amazon Rainforest.

1. You can TRAVEL FREE while giving your students and their families the benefits of educational travel to one of the most diverse environments in the world. Bring a group of €

and travel with all of your expenses paid during an 8-day Amazon Rainforest workshop June 15, June 25, or July 5, 2006. Experience a 1/4 mile Rainforest canopy walkway, get involved in a village service project, and see how indigenous cultures use the forest for medicine, food, and shelter. Land cost for students & families is \$1798, plus roundtrip airfare. For information on how teachers can TRAVEL FREE to the Amazon Rainforest, visit <http://www.travel2learn.com>

2. Sign up for the 14th annual Amazon Rainforest Workshop specially designed for K-12 educators, scheduled July 7-16, 2006. This 10-day event, co-sponsored by Selby Botanical Gardens, is a professional development opportunity for teachers to work side-by-side with a spirited faculty of scientists. Academic credit and an extension to Machu Picchu are available. Land cost for this educator workshop is \$1998, plus air. For expedition information or funding ideas call Dr. Frances Gatz at 1-800-669-6806, email fgatz@earthlink.net or visit the website <http://www.travel2learn.com>

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Environmental Expeditions, 9335 Fraser Avenue, Silver Spring, MD 20910
Frances Gatz, Ph.D., Director, Rainforest Workshops
Fax: 301-585-4899 email: fgatz@earthlink.net
Phone: 800-669-6806 or 301-585-7027
Web site: WWW.TRAVEL2LEARN.COM

• Genetics Mentor Network

The American Society of Human Genetics (ASHG) and the Genetics Society of America (GSA) represent thousands of active scientists, clinicians and advocates of genetics research in humans and other organisms. More than 1,200 of our members comprise the Mentor Network- a resource we want to promote to K-12 life science teachers throughout the US.

The Mentor Network represents those members who are willing to volunteer in a K-12 classroom and discuss genetics with students. Each state at each level has genetics standards that they must cover throughout the school year. Whether the standards cover heredity, DNA structure, biodiversity, evolution, or other genetics-related topics, we can help teachers find a mentor that will come into the classroom to help with coverage of those topics.

You may have come across our website or Network before as a part of National DNA Day. DNA Day is held every year on (or around) April 25th and is co-sponsored by many organizations including the ASHG, GSA, Genetic Alliance and the National Human Genome Research Institute. But we also know that genetics coverage happens at different times of the year for different teachers and our mentors are available YEAR-ROUND.

Look us up at <<http://genetics.faseb.org/genetics/ashg/ashgmenu.htm>>. Through this Mentor Network site, teachers can search online for a genetics mentor in their region and by an area of specialty. Mentors are available to respond to student and teacher inquiries about genetic topics, identify educational resources on genetics for teachers and students or visit classrooms to speak to students directly about genetics research and applications.

Kenna Mills Shaw, PhD

Director of Education
American Society of Human Genetics
9650 Rockville Pike
Bethesda, MD 20814

- [Message for Earth Science Teachers:](#)

Coming soon! Earth Science Teachers who participated in the UNI summer workshop *Geology of Iowa for Teachers* watch for information on a resource for you to share your lesson plans, strategies, ideas, field trips, and other items with fellow participants! ISTS Earth Science Chairperson De Anna Tibben will be contacting you to let you know how you can participate. Didn't participate in the workshop? Please email dtibben@ames.k12.ia.us if you would like your name to be added to the list!

- *Iowa Science Olympiad*

Mark your calendars!! The date for the Iowa Science Olympiad is Saturday, March 4th, 2006. It will be held in Ames. Anyone interested in registering or in more information should contact me: Peg Barbour, Ames Middle School, 3915 Mortensen Rd., Ames, IA 50014 515-268-2400 ext. 5044

- **Leaders gather in Iowa to discuss math and science:**

At the Iowa Summit on Mathematics, Science, and Technology held recently in Des Moines, education, business and legislative leaders met for a two-day planning session on how to better prepare students for careers in these fields.

According to the *Des Moines Register*, Joan Duea, director of the Iowa Mathematics and Science Coalition, said the culture must change. "Students won't say they're bad at reading, but it's very common to say they don't like math, or they can't do math, that it's too hard. That can no longer be an accepted response."

Participants broke into groups, and developed a series of proposals for action, including a promotional DVD aimed at stimulating kids' and parents' interest in careers in math, science, and technology; forming ongoing relationships between workplaces and schools; and identifying business and grant support for highly qualified teachers and special classroom projects. The summit was paid for with a grant from NASA, the National Alliance of State Science and Mathematics Coalitions (NASSMC) and the U.S. Department of Education.

To read the *Des Moines Register* article, visit

<http://desmoinesregister.com/apps/pbcs.dll/article?AID=/20051112/NEWS02/511120324/1001/archive>.

To learn more about the series of state summits being planned by NASSMC members, go to <http://www.nassmc.org>.

• Another Science Research Opportunity for Students..

The University of Central Florida 's College of Engineering and Computer Science and the National Medal of Technology Program at the U.S. Department of Commerce ask your assistance in alerting teachers in your state to the ninth annual [Internet Science and Technology Fair](#) (ISTF).

The ISTF is a national technology literacy program that last year involved 250 student teams from 10 states. It offers students in grades 3 through 12 an opportunity to work on-line with technical advisors from corporations, federal laboratories, and academic research centers. Students relate National Critical Technology applications to real-world problems and adhere to content guidelines based on national science content standards. The ISTF combines science inquiry and the Internet while helping students develop interpersonal and critical thinking skills, such as teaming, communicating, researching, analyzing, writing, and web developing.

The program officially begins in October and ends in February, when each student team's research findings are presented in a web-page format. A national panel of scientists, engineers and teachers judge teams' final projects on-line with top certificate awards from the National Medal of Technology Program. From now through November, education-related professionals (including but not limited to science, math, and technology teachers) in your state are encouraged to enroll student teams. [Newcomers](#) can access information specifically designed to better understand what is involved. Once a decision is made to participate, teachers may set up an ISTF Teacher Account at [My ISTF](#) and begin enrolling student teams.

Again, please share this information with your elementary, middle and high school science, math and technology teachers and other educational professionals who might be interested. A [one-page flyer](#) is available for distribution purposes. Should you have any questions, please [contact my office](#). (These links are "live" in an enhanced email browser.)

Bruce Furino
Director
Office of Special Programs
College of Engineering and Computer Science
University of Central Florida
director@istf.ucf.edu

- "Electricity Explained" CD

Teaching electricity presents problems for both students and teachers. We think our animated lessons proves that difficult ideas don't need to be difficult to teach.

"Electricity Explained" was launched in England in January 2004 and is currently used by 10% of British schools. It is the subject of dedicated teacher workshops run by both the Institute of Physics and the Association for Science Education.

When the Times Educational Supplement reviewed "Electricity Explained", they described it as, "Quite simply this is one of the best physics teaching and learning resources on the market."

We launched Electricity Explained in the US at the NSTA Dallas convention in March, and have had very positive feedback from elementary, middle and high school teachers.

If you would like an evaluation copy please let me know. I would like to send evaluation copies for all the schools that ISTS helps.

Best wishes,

David Parnell

david@furryelephant.com
phone: 011 44 1624 825899

fax: 1 866 280 9412

• ISTS Fall Conference Photos (Thanks Tom Ervin!!!)



Iowa Academy of Science Goals:

- Promote research in the sciences
 - Promote public understanding of science
 - Improve instruction in the sciences
 - Disseminate scientific knowledge
 - Recognize high achievement in science and science teaching
- To attain these goals throughout the state of Iowa.

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Check out past issues of the ISTS newsletter at
[<http://ists.pls.uni.edu/newsletters/index.html>]

Your ISTS Leadership Team! can be found at:
[<http://ists.pls.uni.edu/officers.html>]

(We are always looking for good people. Send an e-mail to mclough@iastate.edu if you wish to be more involved.)

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Invitation to improve/contribute to this newsletter

How best can this newsletter serve you? Do you have something to contribute for the good of the ISTS membership? Zing a line at mclough@iastate.edu or nweirather@central-lee.k12.ia.us.