FOSS Magnetism and Electricity Poster Pack Wins Publishing Award

The FOSS Magnetism and Electricity Poster Pack won the Association of Educational Publishers’ (AEP) Distinguished Achievement Award! For 37 years, the Distinguished Achievement Awards have honored the diversity and quality of supplemental publishing products made for the home and school. In 2004, categories were expanded to reflect the growth of electronic publishing and the expanding educational publishing industry.

Delta Education, LLC, and the Lawrence Hall of Science join an elite cadre of companies in the supplemental publishing field who have been honored for the excellence of their products. More than 1,400 entries in all categories were submitted for consideration, from which 119 winners were selected. The FOSS Magnetism and Electricity Poster Pack was one of two awards given in the category of Instructional Materials/Posters.

This year’s AEP Awards gala was held June 8 and 9 in Alexandria, Virginia. AEP, founded in 1895, is a national, Continued on page 2
Each FOSS poster pack includes a set of full-color posters (one poster per investigation) with accompanying question strips, as well as an instruction folio that provides strategies for using the posters.

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<td>Magnetism and Electricity</td>
<td>162-2655</td>
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<td>Earth Materials</td>
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To order, call Delta Education at 800.258.1302.
A Hands-On Sabbatical Experience with the FOSS Development Team
By Dr. Joseph J. Gerencher, Jr., Department of Physics and Earth Sciences, Moravian College, Bethlehem, Pennsylvania

How do you stay current in your teaching of the education course “Science in the Elementary School” when the bulk of your teaching responsibilities fall in other academic areas? This is probably a not-too-uncommon situation for many professors of science education methods courses at small colleges. In my particular case, my regular faculty responsibilities involve teaching three separate, unrelated lab-science courses within the science division, as well as teaching the science methods course for our elementary education majors. When I am pursuing interests or developing materials for one area, I feel I am automatically falling behind in the others. Sabbaticals are a wonderful opportunity to renew, reinvigorate, and refresh.

In my elementary science methods course, which is taken by pre-service elementary teachers during their junior year, students perform hands-on activities to experience investigative science in its many modes. I use materials and approaches from several contemporary elementary science curricula by having the students conduct selected activities drawn from the publishers’ products. My lessons from the FOSS program were modeled to emulate the FOSS presentations that I had experienced at meetings of the National Science Teachers Association (NSTA). But I felt my personal experience was too limited, and my resources were too meager for these experiences to do justice to the importance of the FOSS program in today’s science-education environment. With more insight into the FOSS program and how it was and continues to be developed, and with more experience with the materials and recommended approaches, I could become a more effective teacher of my own students in the elementary science methods course.

I had made contact with Larry Malone and Linda De Lucchi, co-directors of the FOSS program, during some FOSS presentations at a previous NSTA meeting. Using this brief but important connection, I contacted them at the Lawrence Hall of Science (LHS), University of California, Berkeley, and made arrangements to spend a week with them and the FOSS development team. The experience was valuable well beyond my greatest expectation. I was warmly received and, although space is very tight at LHS, I was always given some space to work each day. While I was there, the team was modifying some elementary lessons and developing investigations and the necessary support materials for one of the middle school courses. They included me in the team that went into some of the local schools to field test the investigations and supporting materials. Back at LHS, the full FOSS curriculum, including all of the teacher manuals and associated equipment, were made available to me.

I learned that the FOSS project had developed a two-box FOSS sampler kit for instructors of elementary science methods courses. Larry and Linda made one available to me upon my arrival at LHS. But my days there were so full that I didn’t really get a chance to go through the kit’s contents in any systematic way until I returned to my home campus. The kit contains several sample teacher guides from the various grade levels, as well as the equipment to support these lessons.

Although the FOSS program has always been associated with LHS, there is more that happens there—much more! These other LHS diversions were icing on the sabbatical cake. It has a museum exhibit area that features its rich history; it has hands-on displays and indoor and outdoor exhibits; and it has an extensive community outreach program. LHS is also the home of other science curricular development projects, such as Great Explorations in Math and Science (GEMS) and the Science Education for Public Understanding Project (SEPUP). Of course, any stay at LHS needs to involve developing some familiarity with all of these. Even lunchtime can be put to great purpose admiring the spectacular view from LHS’s hillside location above Berkeley and San Francisco Bay. The vagaries of the weather add to the daily spice of the visual experience.

Although I am not anxious for the sabbatical to end, I am at the same time excited to use my new materials and experiences to enhance my elementary science methods course when I next teach it. I had a great experience, met many dedicated and talented educators, learned valuable information, developed a deeper appreciation for curricular innovation and refinement, and left with an abundant supply of ideas and materials that will benefit our program for pre-service teachers into the distant future. For science faculty with diverse teaching responsibilities that include an elementary science methods course, I heartily recommend a sabbatical involvement with the FOSS group at LHS. If you make arrangements for a similar experience, remember to bring binoculars to enhance your lunchtime dining pleasure.

You can contact Dr. Joseph J. Gerencher, Jr., at the Department of Physics and Earth Sciences, Moravian College, 1200 Main St., Bethlehem, PA, 18018-6650, 610-861-1440.
Waikoloa Elementary School (WES) on the island of Hawai‘i has spent the last two years developing an inquiry-based science, math, and technology program. This project was funded through a National Science Foundation Rural Systemic Initiatives grant to support the development of science education that is of relevance to rural students. The statewide project was called Hawaii Networked Learning Communities (HNLC).

For the HNLC grant, WES and nine other schools were designated as the first group of schools (Cohort 1). Waikoloa Elementary School was the only elementary school in Cohort 1. The Cohort 1 schools were asked to develop projects that were locally relevant, specifically environmental monitoring projects, using standards-based science, math, and technology curricula. This first group of schools started their projects in the fall of 2002. They were given just two years to accomplish these goals.

We knew at the beginning of the project that there were several factors that would be essential to the success of the initiative. One of the main challenges to the schools was the lack of models or established projects already implemented in Hawai‘i. There was also no statewide standard assessment for science that could be used to evaluate students and to track their progress. We would need:

1. A well-established standards-based science curriculum.
2. A quantitative measure of the changes in student content knowledge.
3. A formative assessment model to track student progress.
4. An inquiry-based component to the investigations.
5. A school scope and sequence for science.

Because Hawai‘i has such a different climate and range of ecosystems than most states in the United States, there was not much available as far as curriculum, websites, books, and project models for class projects. Most of the available resources and projects didn’t fit with the Hawaiian environment. On the other hand, we had rainforests, coral reefs, coastal ponds, volcanoes, and some of the world’s best astronomical observatories in our backyard. So we were not discouraged—just daunted by the amount of work we
would have to do in such a short period of time. We knew that it would be essential to develop a collaborative process to bring together the resources of the various teachers and staff within the school and to integrate those resources with the knowledge and skills of experts from local agencies and environmental organizations. We also had one major advantage. Three years before the project began, the fourth- and fifth-grade teachers had researched the best available science curricula and kits, and they had chosen FOSS. The teachers had purchased seven of the grade 5–6 FOSS kits and five of the grade 3–4 kits. Because we had the FOSS modules, we could jump right in on the first day, teaching hands-on science and developing the project-based units as we went along. 

Meeting the Challenge of Creating a Standards-based Science Curriculum and a School Scope and Sequence

The FOSS modules have been the backbone of the WES Science, Math, and Technology initiative (SMT) from the very beginning. Because the FOSS program consists of distinct modules and covers a broad spectrum of science standards, the grade levels at our school were able to quickly identify which science content areas were not being covered by the current curriculum and choose a FOSS module that would fill that need. This allowed the school to create a school-wide scope and sequence in just one year.

Another innovative feature of our SMT initiative is our use of the FOSS modules as a foundation from which to create more locally relevant, student-directed curriculum. While FOSS kits are content-rich and standards-based, they need to be extended with other investigations and activities relevant to Hawai‘i. We used the FOSS modules as a starting point for guided inquiry and standards-based content, and then we created our own lesson plans for our specific unit needs. We have been able to quickly create the type of inquiry-based, project-based units that are central to the implementation of HNLC grant program.

The FOSS program played another important role in the project by providing a common ground between the school science liaison (myself) and the grade-level teachers. I am a marine scientist with little elementary school teaching experience. Most of my teaching experience has been at the university level. I was not sure what level of science content knowledge would be reasonable for elementary school students. On the other hand, some teachers were not as comfortable teaching science as they were teaching other subjects, such as language arts and social studies. Because the FOSS modules provided a well-organized curriculum based on the students’ cognitive developmental levels, we had a strong foundation for starting the project. The classroom teachers could read the short background at the beginning of each module and watch the videos, and I could quickly see what level of science content was reasonable to expect of the students.

This proved to be a very successful strategy. Having the FOSS modules helped the teachers let go of the need to know all the science content and instead explore the interesting questions that naturally come up as the students proceeded with the investigations. For me, the FOSS modules provided content and activities that were appropriate to their level of cognitive development. Because I was

Continued on page 6
piloting the lessons, the teachers could see how much of the time I was learning new things as we went along and that helped them to realize that, unlike in some core areas, in science the whole point is to explore new questions. (“I don’t know the answer to that question, how do you think we could find out?”)

Because we were building on the FOSS modules, we could spend our time exploring new questions and ideas rather than developing basic lesson plans. Here is an example of how we extended the investigations using a FOSS module. During the first year we taught the Water Module. In addition to doing the investigations in the kit, we extended the module to include investigations on the pH of common liquids because this was important to the water quality portion of our environmental monitoring project. The students often surprised us by extending beyond the investigations themselves. As part of the unit, we used gumdrops connected with toothpicks to build models of water molecules, using one color gum drop for oxygen atoms and another for hydrogen atoms. We were puzzling over why very cold water will sink to the bottom of a glass of room-temperature water, but solid ice floats on the surface. Once the students learned that there were six oxygen atoms arranged with two hydrogen atoms connected in solid ice, they came up with the hexagonal lattice structure by themselves. They observed there was much more space in the ordered arrangement of the lattice work of solid ice than when the molecules were all moving around freely in liquid water. The students were able to see and explain why the ice would be less dense and would float. I was amazed, and it was the beginning of my realization that we greatly underestimate how far elementary students can go in using scientific models to explore their world.

Meeting the Challenge of Assessment

An important requirement of the HNLC program was measuring student performance using a standardized assessment method. Again, we were able to rely on FOSS for the foundation of our data because each module also provided the necessary standards-based assessment. Once we determined which modules we would be using at each grade level, we could then create a specific test. For two grade levels, we used the End-of-Module assessments and created additional questions that were specific to our own units to develop a test that could be given at both the beginning and end of the year.

The pre- and post-test fulfilled the need for a standardized assessment of the content knowledge acquired by the students during the year. We have quantitative data that shows significant increases in content knowledge by the students for both years. We also have data that could be used to compare our students’ content knowledge in science to national scores.

In addition, we created summative assessments to track student content knowledge over the course of just one unit during a single quarter. The data from both these assessments gave us essential quantified results to report for
the grant. FOSS also provided us with some ideas for formative assessments with each project. We took these ideas and modified them to meet the needs of each particular class and each project. Some classes created classroom murals, others created Web pages, and others conducted individual investigations and presented the results to the class.

**Collaboration Within the School and with Organizations in the Community**

We have relied heavily on a collaborative model for curriculum development both at the school level and with our community partners. The grade-level teachers and I have worked closely throughout this initiative with our librarian, Hawaiian studies and computer science teachers, and the school technology coordinator. The FOSS program provided us with a common ground for the collaboration. This made the planning process much easier and focused. The result has been that, during each unit, the students are engaged in exploring the same general content in their classrooms, during science lab, in the computer lab, and during library instruction.

Because we are an inclusion school with a high SPED and ESL population we have also worked as a collaborative team with our SPED and ESL teachers to provide them with the curriculum and project assignments ahead of time and to develop differentiated instruction methods.

The results of our collaborative model are reflected in our assessment data. From the formative assessments it is clear that the students are actively engaged in the material and are making gains not only in the science and math content areas, but also in language arts skills. The data from the summative assessments shows a statistically significant increase in student performance in all seven classes tested by the end of both years.

**Challenging Ourselves to Keep Growing and Learning**

I continue to be amazed at the way elementary students are not hindered by worrying about what they do and don’t know. When they encounter something that they are curious about they just forge ahead. As a society many of us underestimate how much elementary students can learn about a topic. While it is difficult to build enough time into the regular school schedule to allow students to move beyond the set curriculum and pursue their own investigations, it is essential if they are to take ownership of both the content and the methods of inquiry that are integral to good science.

During the last quarter of the 2003–2004 school year, we focused on only the Reflections investigation (from the Ideas and Inventions Module) with our fourth-grade students. We decided to spend less time trying to cover the full spectrum of the curriculum in that module and to instead build in more time for the students to conduct their own investigations. Once we explored light reflections with the mirrors, we went on to investigate bilateral and radial symmetry in the computer lab and refraction of light in lenses and rainbows. By the end of the quarter, the students were conducting their own investigations. The various investigations included creating mazes that had to be negotiated using a beam of light bouncing off mirrors, using water and mirrors to create rainbows, constructing pinhole cameras, or creating secret codes that could only be read using mirrors. They also used microscopes to compare common structures, such as flower parts, human hair, insect legs, and bird and insect wings.

For most of the last two years we have used FOSS modules with our fifth-grade classes. So far we have taught the Mixtures and Solutions, Variables, Food and Nutrition, and Environments Modules. For one quarter we did an additional unit on coral reef organisms and ecology. Thanks to the crayfish investigations from their fourth-grade year and the brine shrimp hatching experiments from the Environments Module, the students were already experts on crustaceans.

We spent most of a quarter studying some of the other major groups of marine invertebrates and comparing them to crustaceans. Near the end of the quarter a student asked, “What kind of organisms are sea fans?” and wondering if they are echinoderms like sea whips. “No,” replied another student. “They are clearly cnidarians.” That started a debate about whether or not they were echinoderms or cnidarians. To help decide, we listed all the characteristics of echinoderms, arthropods, cnidarians, and mollusks.

Once we had determined that sea fans were cnidarians, some interesting discussions about corals ensued. They

*Continued on page 10*
Coming soon to a science classroom in your neighborhood...

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To test-drive a 2005 model Dotcar, contact your regional FOSS sales manager.

*The Dotcar will be available in January 2005.*

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<td>Force and Motion</td>
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raised the question “Is the whole coral a single animal or is it a colony of individual animals all joined together?” I challenged the students to consider what kind of animals barnacles were. That started a major debate about whether they were mollusks or arthropods. After they each worked out their arguments, the class divided up into groups. One group supported the view that barnacles were mollusks and the other group supported the view that barnacles were arthropods. Each group presented their argument, and the class discussed each argument’s strengths and weaknesses. The grade-level teachers and I were all amazed that the students would pursue these questions so far. Starting next year we will be extending the **Environments Module** to include a school garden. We can’t wait to see where that leads us!

**Future Challenge: Funding to Support the Program**

Like all other schools and all other science education programs, we face the constant challenge of obtaining the funds to continue to provide the science and technology program at the Waikoloa Elementary School. While there will be another three years of the Hawaii Networked Learning Communities project, the DOE has decided to only fund each school in the program for two years. So in June 2004, the funding for the Waikoloa Elementary School ended. As a result, the full obligation for finding continued funds to support the science projects has fallen to WES.

A rural school in Hawaii this is a major challenge. In the past two years, we have been successful in getting grant funding through the Kula Na’i’a Foundation to support the marine conservation aspects of the science program. Mobile Education Partners has been very successful in obtaining grants to provide the technology tools and additional staffing for science and technology initiatives at schools in our district. Our plans are to build on these partnerships and expand our support to include parents, more local experts, and other organizations in our community with common education goals. We are optimistic that our success in building such a vibrant, rigorous program in just two years will lead to recognition and continued support from our community for the school’s science, math, and technology initiatives.

You can read more about the extensions used for the FOSS modules described in this article at [http://lhsfoss.org](http://lhsfoss.org). Go to Newsletters in the sidebar menu. 📝

*Ania Driscoll-Lind is a marine scientist and science education specialist working with the Waikoloa Elementary School. She is the education program director for the Kula Na’i’a Foundation ([www.kulanaia.org](http://www.kulanaia.org)). You can contact Ania at ania@kulanaia.org or 808-883-6808.*
Searching for Aerial Photos on the Internet

If you are or are planning to use the Landforms Module, Planetary Science Course, or Earth History Course, consider doing an Internet search for aerial photographs of your local area to personalize the investigations for your students. There are several sources of aerial photos available online, some from which you can download low-resolution images to use right away and others from which you can order prints for duplication in higher resolution. Here are some places to check out in your search.

EarthExplorer
http://edcsns17.cr.usgs.gov/EarthExplorer/

EarthExplorer is the updated version of the Earth Resources Observation Systems (EROS) Data Center imagery site. From EarthExplorer, you can search for and order satellite images, aerial photographs, and cartographic products through the U.S. Geological Survey. Registering allows you to access more features than a guest. EarthExplorer is available now for both Macintosh and PC users.

Once you sign in as a “Guest” or registered user, you can define your search area on a map, by entering latitude/longitude coordinates if you have them, or by a place name, such as Yosemite.

If you choose “Define on Map,” you are shown a map of the United States and portions of Canada and Mexico. You can use the controls to mark a “point” you want to search or you can define a “rectangle” with two points. You can also zoom in closer to refine your search. The image here shows a rectangle in which Yosemite National Park is located. To do a search for images from this reference map, you click on “Select.” You are returned to your page of origin, which now has the coordinates filled in for your rectangle.

If you search by place name, e.g., Half Dome, you will be shown a map with a point location. From there click on “Select.” Scroll down to the Data Set Selection menu. The easiest format to use digitally with the FOSS investigations is Digital Orthophoto Quadrangles, found under the Aerial Photography category. Once you’ve made your data set selections, click on “Continue.” This takes you to another criteria page, from which you can make more choices for your search. As you become more familiar with the site, these other criteria may become more useful.

Make your selections and click “Search” near the bottom of the page. It may take a minute or two for the search to be completed depending on the size of the rectangle you outlined, the number of records you have requested, the specific criteria you have suggested, etc. Eventually you will get a Results Summary similar to the one shown here.

Click in the box next to Digital Orthophoto Quadrangles. Then click “Results.” You are taken to a page like this.

Click on “Show” under the Preview Image column for the image you want to look at. You should now see a preview image of the photo you are looking for.

When your image appears on the screen, you can download it or do a “Save As” using the steps appropriate for your computer and browser. These are low-resolution images, but you may be able to change the contrast, brightness, and other properties of the photo in a graphics program such as Photoshop®.

This was just a quick lesson in the use of EarthExplorer. There is plenty more to explore as you gain experience.

NOTE: Aerial photos from the U.S. Geological Survey will soon be available in digital format only. See the EarthBrowser home page for more information.

Continued on page 12
shown here. Click on a course icon and you will be whisked to a variety of resources for teachers for that course, including course summaries, course notes, a resource database including books, software and websites, information about plant and animal care, as well as locate resources for ordering publications and photographs.

**TerraServer USA**
http://terraserver-usa.com/
TerraServer USA is a combined effort of Microsoft and the U.S. Geological Survey to make aerial imagery and USGS topographic maps available online.

**Kite Aerial Photography**
http://arch.berkeley.edu/kap/kaptoc.html
Charles C. Benton of Berkeley, California, has refined the craft of taking aerial photographs from a kite. Learn more about how he does this and see the results at this Web page. 

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**FOSS Middle School Introduced on FOSSweb!**

Information for the FOSS Middle School courses is now available on FOSSweb, www.fossweb.com! Beginning November 1, 2004, you can click on the sheep icon on the FOSSweb.com Welcome page and travel to the FOSS Middle School icons page shown here. Click on a course icon and you will be whisked to a variety of resources for teachers for that course, including course summaries, course notes, a resource database including books, software and websites, information about plant and animal care, as well as a link to pdf files for the Lab Notebook. Information about all of the published courses can be accessed, and new course information will be added as it becomes available. 

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**Other Resources for Aerial Photographs and Information Online**

The following is a short list of other online resources for aerial photographs. Let us know if you find them useful and how you use them yourself or with your students.

**U.S. Geological Survey/Geography**
http://geography.usgs.gov/
From here you can learn more about USGS aerial photographs and satellite imagery, as well as locate resources for ordering publications and photographs.

**TerraServer USA**
http://terraserver-usa.com/
TerraServer USA is a combined effort of Microsoft and the U.S. Geological Survey to make aerial imagery and USGS topographic maps available online.
“At first people refuse to believe that strange new things can be done, then they begin to hope it can be done, then they see it can be done—then it is done and all the world wonders why it was not done centuries ago.”

—Frances Hodgson Burnett, author of The Secret Garden (quoted on p. 4 of Girls Think of Everything)

This Wordsmiths column includes titles focusing on ideas and inventions, life science, women in science and technology, careers, and more. Some of the titles are intended as student reading; others are suggested as additional background for you, the teacher, to read and relate the stories and ideas as you engage in the FOSS modules and courses.

You can find more FOSS reading resources, as well as software and video resources, at http://lhsfoss.org/fossweb/teachers/resources/index.html.

If you would like to recommend books or other resources to our FOSS users, send your title and other information to the FOSS staff at foss@berkeley.edu. Use the entries described here as a model for the information we need to include in your reference.

Girls Who Looked Under Rocks: The Lives of Six Pioneering Naturalists


From Rachel Carson to Jane Goodall, the six women portrayed in this book all grew up to become award-winning scientists and writers. As girls, they weren’t squeamish about spiders or snakes; they took time for a close-up look at their world, even though they were often chastised for getting dirty. As adults, they were passionate about their science in their careers as educators, writers, and researchers. (Life Science Strand)

The Sky’s the Limit: Stories of Discovery by Women and Girls


More inventions by women and girls are the subject of the latest book by Catherine Thimmesh, the author of Girls Think of Everything. This volume includes stories about Jane Goodall’s studies of the use of tools by chimpanzees; the design of Sojourner, the Mars rover, by Donna Shirley; how Beatrix Potter, the author of the Peter Rabbit stories, discovered the dual life of algae and fungi in lichen; and Sue Hendrickson’s discovery of the biggest, most complete Tyrannosaurs rex fossil in 1990. Includes resources and a selected timeline of discoveries by women.

Continued on page 14
Did you know that Ben Franklin really didn’t carry out the kite-flying experiment in a thunderstorm? If he had, he might not have been around to sign the Declaration of Independence, according to Ira Flatow. Flatow, formerly the host of Newton’s Apple and now of a weekly science show on National Public Radio, describes the behind-the-scenes tales of many great inventions, including television, telephones, George Eastman’s advances in photography, and more. This is a book for good readers in fifth grade and above or for you to read and relate the stories to your students. *(Ideas and Inventions, Models and Designs, Variables, Electronics)*

**Working with Wildlife: A Guide to Careers in the Animal World**


Many students love animals and aspire to a career working with them, often as a veterinarian. This book describes other options with a detailed survey of career fields for those who wish to work with wildlife, including veterinary medicine, zoo and aquarium careers, research, education, conservation, and more. Includes a glossary and ideas for how to pursue the chosen career. *(Environments, Diversity of Life, Populations and Ecosystems)*

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**Notes from the Field...**

Fossey is the “rat cat” for the Science Kit Warehouse in Bremerton, Washington. This photo was sent to Comer Johnson, FOSS Sales Manager, by Debbie Witt, Science Kit Warehouse Coordinator for the Olympic Educational Service District 114 Science Kit Center. Fossey seems to enjoy her job and the view from her perch on top of the FOSS boxes.

**FOSS Materials Management Symposium**

The third annual FOSS Materials Management Symposium was held at ESD 112 in Vancouver, Washington, September 30–October 1, 2004. If you have a Materials Resource Center that includes FOSS materials, and if you want to become part of the national network in order to get information about future events, contact foss@berkeley.edu.
Delta Education will host one-day FOSS Institutes in conjunction with the 2004 NSTA Regional Conventions. There will be a K–6 Informational Institute before all three NSTA Area Conventions and a Middle School Informational Institute before the Indianapolis and Seattle NSTA Area Conventions. These Institutes are designed for all educators—lead teachers, administrators, curriculum coordinators, professional developers, and university methods instructors.

The K–6 Institute will provide an introduction to the elementary school program by focusing on several modules from the different grade levels. FOSS developers will be there to lead each workshop and provide program updates and introduce new components.

The Middle School Institute will provide an introduction to the program by focusing on a few of the eight courses currently available. FOSS development staff and experienced teachers will lead the Institutes. There is no charge, but participants must register in advance to attend. Times and locations are listed in the calendar. To secure your spot at the Institute of your choice, please call, write, fax or e-mail:

Pam Frisoni
Delta Education
80 Northwest Boulevard
Nashua, NH 03063
pfrisoni@delta-edu.com

Phone: 1.800.258.1302 ext. 503
Fax: 603.579.3504

For more calendar events, visit FOSSweb at http://www.fossweb.com/news/calendar.php

If you would like to be added to the mailing list to receive this newsletter, send your name and address to:

Kristi Guillemette
Delta Education
80 Northwest Boulevard
Nashua, NH 03063
kguillemette@delta-edu.com

Phone: 800.338.5270

FOSS has institutes and workshops scheduled before and during the NSTA National Convention in Dallas, Texas, March 31–April 3, 2005. Watch for the Spring 2005 issue of the FOSS Newsletter or check the FOSS Professional Development Calendar online at http://www.fossweb.com/news/calendar.php for more details.
About This Newsletter . . .
The intent of the FOSS Newsletter is to help FOSS users develop a network of support across the country. Delta Education and LHS will work together to bring you news two times per year, including articles regarding the latest development of modules, tips about management from teachers and administrators, ways to make connections with other teachers and districts, extensions and reading materials to add to modules you are already using, and informative articles about good educational practices.

So, we need your help. If you have a tip that enhances the teaching of FOSS or would like to submit an article (with photos) about exciting activities or school programs, management, implementation projects, etc., please send them in. We would also like to hear from your students, whether they have questions about the content, projects they have done, photos or other images they have created, or insights into how they use the World Wide Web with FOSS. Send your contributions to:

Sue Jagoda, Editor
foss@uclink4.berkeley.edu
FOSS Newsletter
Lawrence Hall of Science
University of California
Berkeley, CA 94720-5200

The deadline for submissions to the next issue is December 10, 2004. We’re waiting to hear from you.

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