



January 31, 2007

### Science for Alaska Lecture Series 2007

Mondays at 7:15 p.m. Wendy Williamson Auditorium, UAA. Each lecture is free and all ages are welcome! Be sure to come early because the Imaginarium will provide educational demonstrations that coincide with the night's topic. Demonstrations begin at 6:30 p.m. and will offer hands-on activities and information. The lectures follow at 7:15 p.m.

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Science for Alaska is coordinated by the Geophysical Institute at the University of Alaska Fairbanks. For more than a decade, the series has taken place in Anchorage, but we hope 2007 is bigger and better than ever! We hope to see you at Science for Alaska! For more information check us out at [www.scienceforalaska.com](http://www.scienceforalaska.com).

#### Monday, Feb. 5, 7:15 p.m.

*A Different Season: People in a Changing Climate*  
Lilian Alessa, Associate Professor of Biology  
UAA

#### Monday, Feb. 12, 7:15 p.m.

*Some Like It Hot: Volcanoes in the Infrared*  
Jon Dehn, Research Associate Professor of Volcanology  
Geophysical Institute, UAF

#### Monday, Feb. 19, 7:15 p.m.

*The Changing Glaciers of Southeast Alaska*  
Chris Larsen, Post-Doctoral Research Fellow  
Geophysical Institute, UAF

Monday, Feb. 26, 7:15 p.m.  
*Alaska's Beluga Whales: Distribution and Movement*  
Barbara Mahoney, Biologist  
NOAA National Marine Fisheries Service

Posters and bookmarks will be sent to schools.

### WebElements: an online periodic table

<http://www.webelements.com>

Here is an up-to-date resource for all science teachers. The periodic table can be viewed in four different versions. Other useful tools are also available through this website.



**Girl Scouts Susitna Council,  
Alaska Chapter 99s, and the  
FAA present:**

## Aerospace Career Day

Saturday, February 10, 2007  
9:00 a.m. – 4:00 p.m.

UAA Aviation Technology Building (near  
Merrill Field/Northway Mall)

**High school girls** interested in aviation will be taught by members of the Alaska Chapter 99s (women pilots). All girls will receive a Certificate of Completion and registered Girl Scouts will complete some of the requirements for the “Highways in the Sky” Interest Project Patch.

**Program will include an aviation-related career panel, hands-on activities including flight simulators, UAA’s air traffic control tower simulator, a look inside a real plane, and a tour of UAA’s Aviation Technology Bldg.**

Registration is limited to 20 participants and closes February 8. High school teachers may contact their department chair or Robby Bear for the registration form.

Course Fee is \$25 (\$15 for registered Girl Scouts) and includes lunch.

For more information about the Alaska Chapter 99s, visit their website: [www.ak99s.org](http://www.ak99s.org)

### GIRL SCOUTS SUSITNA COUNCIL PRESENTS THE 15<sup>TH</sup> ANNUAL

## Women of Science & Technology Day!

SATURDAY, FEBRUARY 3,  
2007

UNIVERSITY OF ALASKA  
ANCHORAGE CAMPUS

GIRLS IN GRADES 4 – 8:

12:45 – 3:45 PM (MEET

12:30 – 12:45 PM IN THE LOBBY OF PRO-  
FESSIONAL STUDIES BLDG.)

COST: \$5 (MAKE CHECKS PAYABLE TO GSSC)



Featuring three fun HANDS-ON workshops in SCIENCE or TECHNOLOGY-related topics, led by WOMEN in these fields.

(ALL GIRLS MUST BE ACCOMPANIED BY AN ADULT).

Please contact Robby Bear or Joanna Hubbard for a registration form.

### AGRICULTURAL NEWS

New online course with UAA credit starting Feb. 15. 6 weeks of activities on Blackboard. The final project is a lesson plan for use by Ag in the Classroom. The \$100 fee includes the credit. Sign up by Feb. 12, at the Alaska Ag in the Classroom website: [www.agclassroom.org/ak](http://www.agclassroom.org/ak)

The American Farm Bureau is asking teachers to partner with local farm bureau chapters on projects. Get a mini-grant of \$500 for your classroom project. Visit [www.ageducate.org](http://www.ageducate.org) for more information. Deadline is Feb. 15.

Contact Victoria Naegele with any questions: 907-746-2172 [akaitc@alaskafb.org](mailto:akaitc@alaskafb.org)

## It is time to say goodbye!

Many of you (and your students) know Fritz Krause of Fish and Game. Fritz has organized the salmon egg catch and release for schools for 18 years and is retiring.



A retirement “Release” Party is planned for Fritz on March 1st, 4:30 - 7:00 p.m. at Lake Hood Elementary MPR - all are welcome to attend. As appropriate for your building, please let staff and students know about this event.

## DNA Day

### Second Annual National DNA Day High School Essay Contest

Sponsored by ASHG & Applied Biosystems



The contest aims to challenge students to examine, question and reflect on the importance and social implications of genetic research. Essays are expected to contain substantive, well-reasoned arguments indicative of a depth of understanding of the issues addressed by the selected essay question. All students, grades 7-12, are eligible. We appreciate and carefully review each entry.

All essays must be received no later than 5PM EST on March 16, 2007.

If you are interested in reading last year's winning entries, [please visit this site](#). Indeed more than 100 judges are employed to screen and score each essay. We thank members of the [National Society of Genetic Counselors](#) and the [Genetics Society of America](#) for volunteering to serve in this capacity.

Students may choose to address either of the following questions in their essay. A first, second and third place winner will be chosen for each question.

1. [If you could be a human genetics researcher, what would you study and why? Click here to see the scoring rubric for this question](#)
2. [In what ways will knowledge of genetics and genomics make changes to health and health care in the US Possible? Click here to see the scoring rubric for this question](#)

In addition to the prizes for teachers and students listed below, up to five students will be paired with an ASHG researcher for a [summer internship](#). Applied Biosystems, our partner, will sponsor up to 5 interns with \$2,000.00 stipends.

First Place Winners: \$350.00

Teachers of first place students win \$2,000 to purchase classroom equipment!

Second Place Winners: \$250.00

Teachers of second place students win \$175 gift certificate to Carolina Biological Supply!

Third Place Winners: \$150.00

To find the rules and more information, please go to:

[http://www.genednet.org/pages/k12\\_dnaday.shtml](http://www.genednet.org/pages/k12_dnaday.shtml)





## Apply to the ARMADA Project - Research and Mentoring Experiences for Teachers

The University of Rhode Island's Office of Marine Programs is now accepting applications for the ARMADA Project- Research and Mentoring Experiences for Teachers. The ARMADA Project provides K-12 teachers an opportunity to actively participate in ocean, polar, and environmental science research and peer mentoring.

Selected Master Teachers (with five or more years teaching experience) are paired with leading scientists and participate in shipboard, field, or laboratory research with all expenses paid. Research experiences will take place during the summer, although there may be opportunities during the school year. Upon completion of their research experience, Master Teachers develop ways to bring the fruits of their research experiences, including scientific data, methodologies, and technology into their classrooms. They share their experiences by mentoring new teachers in their school district and by presenting their results at the National Science Teachers Association National Conventions.

The ARMADA Project has involved teachers in research experiences all over the world. Past experiences include taking part in the largest North Pacific humpback whale study in the waters off the coast of Alaska, investigating the impacts of global change in the Arctic Ocean, monitoring and assessing tidal creeks in South Carolina, studying the impact of human activity on dusky dolphins in New Zealand, exploring the seafloor off the coast of Sumatra to better understand the forces that lead to the 2004 Asian tsunami, water circulation studies in the Norwegian Sea, and a variety of ecosystem monitoring projects in the Bay of Fundy, Narragansett Bay, Gulf of Maine, Stellwagen Bank, Western Shelf of Florida, Sargasso Sea, Bahamas, Alaska, and Block Island Sound. See [www.armadaproject.org](http://www.armadaproject.org) for more information on past research experiences.

### Application deadline is February 5, 2007

For more information about teacher qualifications, responsibilities, and to download an application see the ARMADA Project website [www.armadaproject.org](http://www.armadaproject.org) or contact Andrea Kecskes at 401-874-6211 or [armada@gso.uri.edu](mailto:armada@gso.uri.edu).



## Meet Alaska's own astronaut, Bill Oefelein, pilot of STS-116 aboard Space Shuttle Discovery\*



Monday, February 19th -  
1:00-6:00 BP Energy Center

Free admission

*The Wonders of Space*

Activities for all ages: e-missions, rocketry, robotics, the Planet Walk, and the Starlab

Presented by the Challenger Learning Center inspiring the next generation to excellence in math, science and technology.

For more information visit:

[www.akchallenger.org](http://www.akchallenger.org) or call 907.283.2000

\*Astronaut appearance subject to rescheduling without notice due to NASA priorities

## NOAA & National Marine Sanctuary Sponsored Field Expeditions

Spend a bit of time exploring marine workshops for teachers at the following URLs:

<http://sanctuaries.noaa.gov/education> and  
<http://sanctuaries.noaa.gov/education/teachers/professional.html>

Examples of the programs that are free to teachers:

Learn about coral reef ecosystems and the National Marine Sanctuary Programs'- Flower Garden Banks NMS in the Gulf of Mexico. 5-day introductory workshop: July 7-11, 2007. 2 days of land-based workshop followed by 3 days of SCUBA diving in the sanctuary. (Applicants must be SCUBA certified.) **Application deadline: Feb. 28, 2007.** *This is a competitive application process. 18 participants selected for each workshop.*

Non-SCUBA certified teachers may consider applying for the 2007 Corals to Classrooms educator workshop June 19-20, 2007. Learn about coral reef ecosystems, the National Marine Sanctuary Program & reef fish identification. A field trip to the Aquarium at Moody Gardens is included in this workshop. **Registration deadline is May 31, 2007.**

**Winter Trails Day**  
**Campbell Creek Science Center**  
**Saturday, Feb. 10, 2007**  
**10:30am-4pm**

Snowshoes, classical & skate skis, ski wax demos, snow shelters, Geocaching, hot cocoa, & a roaring fire.

Winter just doesn't get any better!

**Equipment Checkout**

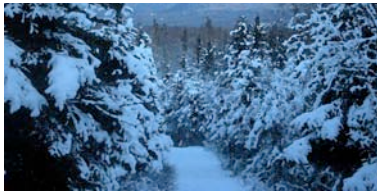
**10:30am-3:30pm**

All equipment loaned free of charge courtesy of REI.

Classical & Skate Skis

Snowshoes

(Ski boot checkout in multipurpose room; ski and snowshoe checkout behind Science Center.)



**Information Booths**

10:30am-4pm Multipurpose Room

- Alaska Mountain and Wilderness Huts Association
- Alaska Trails
- Anchorage Equestrians
- Anchorage Scoop the Poop Committee
- Anchorage Skijor Club
- Chugach National Forest Avalanche Information Center
- Friends of Bicentennial Park
- Friends of the Campbell Creek Science Center
- Municipality of Anchorage Trail Watch
- Nordic Ski Association of Anchorage
- Singletrack Advocates

Check out championship sled dog races at race viewing areas from approximately 10:30am-11:30am & 1:30pm-3:30pm!

**All-Day Activities**

10:30am-4pm

- Geocaching (fire pit)
- Self-Guided Wildlife Snowshoe Loop (snowshoe checkout)
- Snow Shelter Parade of Homes (snow shelter field)
- Snowshoe Obstacle Course (snow shelter field)
- Marshmallow Roasting (fire pit)
- Hot Drinks & Cookies (multipurpose room)
- Kids Corner (multipurpose room)
- Ski Waxing Demo (classroom) every half hour
- Winter Gear Expo & Hypothermia (classroom)
- Animal Tracking (porch)
- Avalanche Beacon Clinic (beacon field)

**Demonstrations**

- Skijor Demo (skijor field) 12:00pm & 2:00pm Anchorage Skijor Club
- Winter Mountain Bike Clinic (bike area) 1:00pm & 3:00pm Singletrack Advocates

Thank you for visiting Campbell Tract!

From the NASA earth observatory, read about:

NASA ICE IMAGES AID STUDY OF PACIFIC WALRUS ARCTIC HABITATS

<http://earthobservatory.nasa.gov/Newsroom/NasaNews/2006/2006121223872.html>

NASA recently collaborated with the Fish and Wildlife Service to determine the usefulness of satellite imagery for studying the effect of climate change on the Pacific walrus ice habitat in Alaska.

Following the article are more links to sites with interesting information.

## 2007 Field Seminars and Teacher Trainings

*Kayak through whale feeding grounds of the Tongass National Forest. Explore the glacier-carved landscape of the Chugach National Forest. Journey through the refuges of the Aleutian Arc by ferry.*

Registration for programs of the Alaska Natural History Institutes is now open!

Programs are offered statewide in Alaska's legendary national parks, forests and refuges. Visit [www.alaskainstitutes.org](http://www.alaskainstitutes.org) to learn more and to register. Also explore programs based out of the [Murie Science and Learning Center](#) in Denali National Park.

### [Bears and Wilderness of Admiralty Island](#)

June 5-11

*\$750 including 3 credits*

In partnership with USDA Forest Service, Discovery Southeast, and Alaska Discovery

### [Sculpted by Ice: Geology and Ecology of Chugach National Forest](#)

June 11-16

*\$750 including 3 credits*

In partnership with USDA Forest Service

### [Where the Sea Breaks Its Back: Culture, Wildlife, and War in the Refuges of the Aleutian Arc](#)

June 11-18

*\$1875 (3 optional credits for \$109)*

In partnership with US Fish and Wildlife Service

### [Seals, Ice, and the Wilderness Idea](#)

June 26-July 2

*\$750 including 3 credits*

In partnership with USDA Forest Service, Discovery Southeast, and Alaska Discovery

### [Geology of the Copper River Watershed](#)

June 27-July 4

*\$1575 including 2 credits*

*\*\*price subject to change*

In partnership with Prince William Sound Science Center and Alaska River Expeditions

### [Whales of Icy Strait](#)

July 19-25

*\$850 including 3 credits*

In partnership with USDA Forest Service, Discovery Southeast, and Alaska Discovery

### [Alaska Natural History Association](#)

750 West Second Avenue

Suite 100

Anchorage, Alaska 99501

907-274-8440

[blarson@alaskanha.org](mailto:blarson@alaskanha.org)

<http://www.alaskanha.org>

## New Earth Exploration Toolbook Workshops

Science, math, and technology teachers of grades 6 to 12 are invited to join telecon-online workshops! In the first workshop, walk through an Earth Exploration Toolbook chapter and discuss ways to use Earth science datasets and tools with your students. In a follow-up second session, share how you used these materials in the classroom by describing the projects and activities that you carried out with your students. Dial in to a toll-free teleconference number and work with colleagues from across the nation. To take part in this opportunity, you need an Internet-connected computer and the ability to talk on the telephone at the same time. Attendees will receive a \$120 dollar stipend for participating in the workshops, carrying out activities with their students, and completing online surveys.

To view the schedule of workshops and register go to: <http://serc.carleton.edu/eet/workshops.html> It is highly recommend that registrants sign up together with one or more colleagues from their school. It has been found that when teachers work together, they can offer each other additional support both during and after the workshops.

Carla McAuliffe, Ph.D.

Senior Curriculum Developer, Researcher, & Evaluator, TERC

(480) 945-6563, AZ office; (480) 612-4572, cell phone





## NEW ONLINE GAME TEACHES CHILDREN TO PROTECT AGAINST NATURAL HAZARDS

A pilot online game from the UN (United Nations) ISDR (International Strategy for Disaster Reduction) teaches children, ages 9-16, how to protect cities and villages against natural hazards through disaster risk planning and management. The game includes five natural hazard scenarios (flooding, tsunami, wildfire, hurricane and earthquake) with different levels of difficulty that require critical decision-making and strategic planning. The player assesses risk, builds and houses the local population, and assigns roles and systems. A natural hazard then strikes, after which the player assesses damage and receives his/her score. The player who has protected the most people and their livelihoods (property and resources) wins the game.

The pilot game, developed by Playerthree Limited is currently being tested in English language schools in Australia, Ghana, Jamaica, and India and UN/ISDR partners are translating the online game in Spanish, French, Hindi, and Japanese.

UN/ISDR is also seeking organizations within the public and private sector that can: 1) host and disseminate the game to the widest networks possible, 2) translate the game in Arabic, Chinese, 3) further develop the game to create more scenarios and a CD-ROM version, and 4) donate computers with Internet access to schools in remote areas.

For more information, please contact: Brigitte Leoni, [leonib@un.org](mailto:leonib@un.org). To test the pilot of the game please visit: <http://www.stopdisastersgame.org>

## NALMS Local Lake and Watershed Protection Grants

These grants are offered to teachers in grades 6-12, to be used for involving their students in lake/river/watershed related projects in their own communities. Entire classrooms or special school-wide environmental groups have historically participated in the program. Projects have ranged from watershed clean ups to water quality monitoring at various sites along streams or shorelines. All projects must include a community based public service theme, and final reports are required from the grantees at the end of the projects. Project summaries and final reports will be available for viewing on the NALMS website.

Funding for these grants is derived from monies allocated to NALMS from the U.S. Environmental Protection Agency. Grants are generally used to pay for equipment and materials (water testing kits, books, lab equipment) related to various aspects of approved projects, but can be used for any approved portion of the project.

The grants are awarded on a competitive basis. This year there is approximately \$6,000 to award. Teachers are asked to aim for projects that range between \$1500 to \$2000, though smaller grant amounts are available as well.

**Applications are due by April 1, 2007**, and the winners will receive their grant awards by September 1, 2007, to be used at the start of the new school year.

More information will soon be posted on the NALMS website sometime in February at

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



## 2007 NSELA Professional Development Institute - Register Today!



March 28, 2007 in St. Louis

### Leading Professional Development in Science Education

Spend a day focused on the best practices in professional development for science education reform. Register today and learn more at <http://www.nsela.org/calendar/calendar1.html>

### 2007 NSELA Summer Leadership Institute - Save the Date!

June 28 - July 2 at the Asilomar Conference Center in Pacific Grove, California. The Rising Tides of Science Education: Preparing Our Students for Global Leadership

Program details and registration will be posted online as it becomes available at <http://www.nsela.org/calendar/calendar.html>

Also be sure to visit the NSELA web site for other services and resources including:

#### Professional Development Opportunities

<http://www.nsela.org/employment/employment.html>

#### Career Postings

<http://www.nsela.org/employment/employment1.html>

#### The Science Educator

<http://www.nsela.org/publications/publications4.html>

Read articles from previous issues or submit an article yourself.

Earn money as you enhance your science teaching skills through this National Science Foundation funded professional development program for K-12 science teachers.

This is an opportunity for teachers to earn money while enhancing their classroom skills by working with other education professionals. The Office of Science Teaching Activities in the College of Arts and Sciences at Florida State University would like to invite you to apply for a summer Research Experiences for Teaching program if the FSU Marine Laboratory called Science Inquiry for Teachers! There are two different RET programs at FSU this summer and to find out more about this one, please go to <http://bio.fsu.edu/osta/RET> for a program description and application.

## THE EMMA WALTON DISTINGUISHED SERVICE AWARD Presented by the ALASKA SCIENCE TEACHERS ASSOCIATION



### GUIDELINES

The Alaska Science Teachers Association annually awards one citation for distinguished service in the field of science education. ASTA members are invited to share in the selection process by sending nominations of Alaska educators to ASTA for review by the Awards and

Recognitions Committee.

The award is designed to recognize Alaska educators who have made extraordinary contributions to the advancement of science education in the sciences and science teaching. Each award consists of up to \$500 to travel to the biannual Alaska Math/Science Conference, where a formal citation and a suitable token of appreciation for the outstanding service rendered by the recipient will be given.

### ASTA Awards and Recognitions Committee Checklist

Excellence of contribution to science education in Alaska is the main criterion for selection of the recipients. Among the types of outstanding services that are considered by the committee are:

- (1) Unique or extraordinary accomplishments in science teaching.
  - \_\_\_\_\_ At the local level
  - \_\_\_\_\_ At the state level
  - \_\_\_\_\_ At the national level
- (2) Active leadership in science and/or science education. Check all that apply.
- (3) Noteworthy scholarly contributions to science education at any level.
- (4) Focusing of public attention on the need for improvement and better support of science education.
- (5) Direct and substantial contributions to the improvement of science education at any level.
- (6) Contributions over a significant period of time.
- (7) Overall excellence of contributions.

**If you are interested in obtaining a nomination form, please contact Robby Bear.**

## Mini-grants for Professional Development



ASTA will be awarding mini-grants for professional development. Professional development activities include activities that would enhance your ability to provide quality science instruction to your students. These may include activities to increase content knowledge and/or improve pedagogy. A total of \$1,000 will be awarded and applicants may apply for a grant of up to \$500 for use during 2007. The **application deadline is February 15, 2007**. Awardees will be notified by March 1. Application forms are on the ASTA web site, [www.aksta.org](http://www.aksta.org). You may download the form and return the completed form (by email) to Mike Geil at [mgeil@northstar.k12.ak.us](mailto:mgeil@northstar.k12.ak.us)

## Awards for Innovative and Progressive Thinking in Education

<http://www.ing-usa.com/us/stellent2/groups/dc/documents/companylobinformation/001143.pdf%20>

The ING Unsung Heroes awards program recognizes innovative and progressive thinking in education.

Maximum Award: \$27,000.

Eligibility: full-time educators, teachers, principals, paraprofessionals, and classified staff members with projects that improve student learning at K-12 public or private schools.

**Deadline: April 30, 2007.**