



Goals

Advocate science literacy for all Alaskans.

Promote the exchange of information about science and science education among researchers, scientists, institutions, public leaders and science teachers.

Recognize Indigenous knowledge and diverse ways of knowing about science and the natural world.

Encourage the development of a skilled and knowledgeable work force in science-related careers.

OUR MISSION

To inspire, promote and support excellence in science education.

Fall 2014

AK Science Teachers Association



YOU CAN JOIN! Science in Our Schools Visioning Group

A group of your colleagues from around the state, current and retired teachers, were spurred by energy generated before and during the 2013 Alaska Math and Science Conference. Further inspired by the mentorship of Patricia Simmons, former NSTA President, this group has been meeting throughout the winter to develop and implement ways to increase the presence, rigor, and relevance of science education in Alaska. The group is working with some support from ASTA, primarily the financing of monthly conference calls for now. Joanna Hubbard, former Presidential Awardee for Excellence in Science Teaching, is the facilitator, and she is using a highly effective leadership model to keep the group collaborating.



As with any new group, finding a focus, establishing an identity, and setting goals have been the first focus. A primary distinction between this group and ASTA is that SOS wants to rally the interest and contributions of science across the community in some specific and visible ways. This includes community and state leaders as well. Enhancing partnerships and publicizing the good work being done already would help accomplish this.

The five goals are:

- I. Build public awareness of the importance of STEM education (communication)**
- II. Help get NGSS understood & in use (in tandem with other curriculum)**
- III. Support all K-12 teachers in being cutting edge & able to teach science**
- VI. Real science sooner (beginning Pre-K, Elementary is vital!)**
- V. Build a strong, unified group of stakeholders willing to act on behalf of STEM Education**

Chair person, Joanna Hubbard hubbard_joanna@asdk12.org can provide you with the most updated version of objectives and activities with current priorities indicated and you can decide where to apply your skills and interests. You are needed to energize and upgrade STEM education in Alaska.

Inside

- Grant Opportunities
- Professional Development
- ASTA Board
- Dates to Remember
- Best Practices
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Check out our website: aksta.org
We are also on Facebook

**EXECUTIVE COMMITTEE:**

President— Cynde Hill, Anch, AK
Secretary—Janet Warburton, Anch, AK
Treasurer—vacant
President-Elect - Michelle Daml, Fbks, AK
Northern—vacant
Interior— Carri Forbes, Fbks, AK
Southeast— Chip McMillan, Sitka, AK
Southwest – Joyanne Hamilton, Shageluk, AK
Southcentral – vacant
At Large A---Michael Haller, Anch, AK
At Large B— Cindy Fabbri, UAF, Fbks, AK
Presidential Awards-Dave Gillam, Anch, AK

2015 Alaska Science and Math Conference
Oct. 23-25th 2015
Sitka, Alaska
amsc2015.org



**2015 Math and Science
 Conference Planning:
 “Navigating the Tides of Change”**

Plans are moving forward for the 2015 Alaska Math/Science Conference. The conference will be held in Sitka, Alaska, October 23-25, 2015. The theme is "Navigating the Tides of Change". Keynote speakers are being lined up. Friday, when all the Sitka teachers will be attending, will feature Mike Hanley, Commissioner of Education, a chance to share findings from our first assessment using the new math and ELA standards. Saturday we will hear Dan Meyer, Ted-X speaker and advocate for reforming math instruction, and on Sunday, Rodger Bybee, science leader who has been involved with the development and facilitation of NGSS, will inspire us. The website for the conference should be up and running in August 2014. We will be looking for presenters from around the state to share what they are doing with students in their classrooms.

If you're interested in helping at this stage or have input and ideas to share, contact Rebecca at himschootr@sitkaschools.org. We hope to see lots of you in Sitka in 2015.

Note: Beautiful logo was designed by Gian Carlo Coloma, sophomore at Sitka High, winner of the local design contest.

Professional Opportunity

Dear Alaska Science Teachers Association,

I am Jordan Harshman, a doctoral student at Miami University working on a research project with Dr. Ellen Yeziarski. During the end of last semester, we contacted each of the state NSTA chapters' help in recruiting high school chemistry teachers to investigate the ways in which they use results from assessments to inform their teaching. As promised then, we are doing a second round of data collection now. This work has already shown promise to inform professional development of chemistry teachers, and with your help will continue to improve chemistry education across the country.

You can help in 3 ways:

1. If you have a list serv with any high school science (not just chemistry) teachers, please send our invitation email to that list serv (listed below this message in between dashes).
2. If you have a spreadsheet of any high school science (not just chemistry) teachers' email addresses, please send us that list and we will email those teachers directly – we can assure that they will not be bombarded with emails.
3. If you know of another person that has access to networks of science teachers in your state or nationwide, please forward this email to request their assistance.

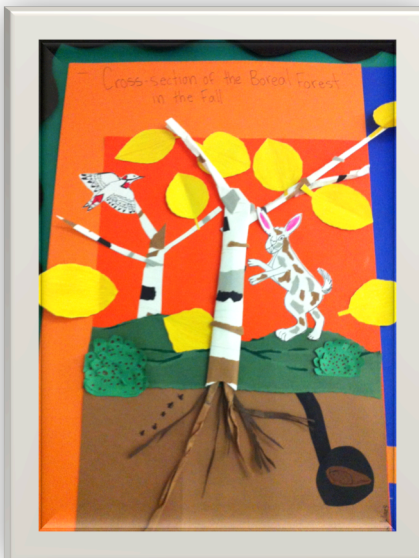
We thank you sincerely for your time and would greatly appreciate any assistance you can provide. Please contact me (harshmjt@miamioh.edu)

We appreciate your service to your state's science education!

Sincerely,

Jordan Harshman
 Doctoral Candidate, Miami University

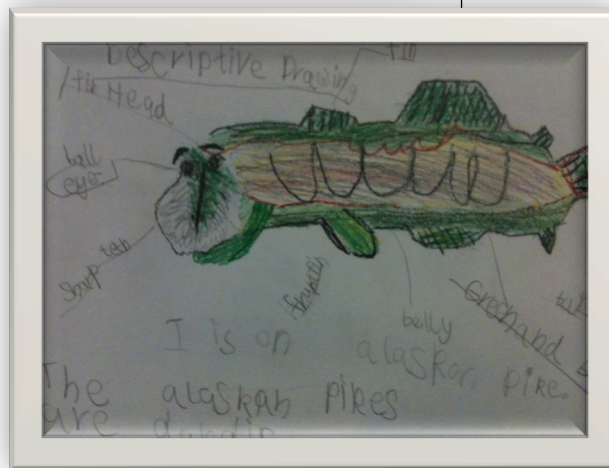
Click to continue to survey:
[Doctoral Survey](#)



Science and Art

How is science expressed through art?

How do the arts inspire science?



“The difference between science and the arts is not that they are different sides of the same coin... or even different parts of the same continuum, but rather, they are manifestations of the same thing. The arts and sciences are avatars of human creativity.” Mae Jamison 2002

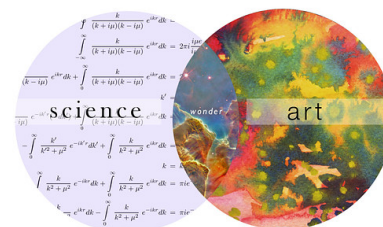
Want to learn more?

[Science and Art Conservation](#)

[Getty Arts and Science](#)

[Project Articulate](#)

[Alaska Arts Education](#)



Grant opportunities:

NSTA Tapestry Grant

Toyota TAPESTRY awardees received grants of up to \$10,000 each to implement innovative, community-based science projects in environmental science, physical science, and integrating literacy and science. A large number of these projects expanded to include multiple schools and communities.

NSTA awards

The 2015 award applications are open for submission. You can't win if you don't apply! You may apply for more than one award; however, each application must be based on a unique program and process and you will be eligible to win only one NSTA award per year.

Science Pioneers

In today's environment, we are working on meeting the challenges of science education and the need to encourage young people into science careers to meet the demands of global competition and skills needed for 21st century careers.

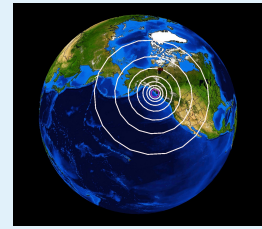
Alaska Literacy Council

The Alaska State Literacy Association provides grant opportunities for encouraging professional development and literacy projects.



Space Foundation Astronaut visit
Crawford Elementary, Eielson AFB
<http://www.spacefoundation.org/>

Earthquakes in Alaska



Alaska has 11 percent of the world's earthquakes.

Alaska has 52 percent of all the earthquakes in the United States.

Three of the six largest earthquakes in the world were in Alaska.

Seven of the ten largest earthquakes in the United States were in Alaska.

Each year about 5,000 to 6,000 earthquakes shake the state of Alaska. That's an average of more than 13 each day!

More earthquake information:
http://seismic.alaska.gov/seismic_hazards_earthquake_risk.html

http://www.aeic.alaska.edu/html_docs/faq.html

Books

Jump Into Science: Earthquakes
By Ellen J. Prager 2007

What causes earthquakes? Where do they happen most? What should you do if you feel the earth shake? Just follow the friendly crow-in-the-know for all the answers!

Witness to Disaster: Earthquakes
By Judy and Dennis Fradin 2008
It's another normal day in Alaska, where the beauty of the rugged landscape makes the hardships of winter worth enduring. This Northern life is good, you think, when suddenly—without warning—your world is ROCKED! The ground sways beneath your feet with sickening force. You've just been caught in the second strongest earthquake in history!