



# SCIENCE BYTES

DECEMBER 8, 2009 VOLUME 17

This is an information exchange that is available to all teachers in the Anchorage School District. Please read and then DO it!

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## *NSTA Conferences 2009-2010*

March 17-20, 2010 Philadelphia, PA

## *Science Olympiad*

March 20, 2009 Teeland & Mat-Su Career and Tech HS

## *Alaska State Science & Engineering Fair*

March 26-28, 2010 Begich Middle School

## 2012: Some Scientific Information

A number of people have gotten nervous questions from students and the public about 2012. (Some cults have already gotten their followers to sell their homes and move underground to farms!!) Well, having a stash of food and fresh water (or at least iodine tablets) on hand is not a bad idea (we Houstonians remember Hurricane Ike from last fall), but Dec 21, 2012 is NOT going to be a planetary alignment or any other known specially dangerous time. It will be the end of a major Mayan calendar cycle but then, like Jan 1, the cycle will start again.

For a good Q&A see the NASA page at:

<http://www.nasa.gov/topics/earth/features/2012.html>

(It also links to a Sky and Telescope article).

Another good web page is from David Morrison via the ASP, talking about 2012 and Nibiru:  
<http://www.astrosociety.org/2012/>

Here is another from Cornell:

<http://curious.astro.cornell.edu/question.php?number=686>

Now, can we be sure that a huge asteroid or comet won't hit us unexpectedly? Of course not, but NASA has been cataloging "Near Earth Objects" to watch for objects that might cause us harm, with new Earth-crossing asteroids being discovered all the time.

<http://neo.jpl.nasa.gov/neo/>

Finally, if you'd like to watch our latest planetarium show on asteroids, meteors and comets, you may do so free on our website:

[http://www.spaceupdate.com/?planetarium\\_shows.html#impact\\_earth](http://www.spaceupdate.com/?planetarium_shows.html#impact_earth)

(You may order full-length HD DVD versions of our planetarium show compendia, suitable to show in your classroom, for \$10 from

<http://www.spaceupdate.com/?order.html> )

Thus, although the description from the Book of Revelations (Chapter 8) of the end of the world sounds like a pretty decent description of a major multifragment impact (a la Shoemaker Levy 9), there is no known reason why any such impact would occur on Dec 21, 2012, and no object in the NEO list with any significant likelihood of impact on that date.

In fact, major disasters can occur at any time - floods, earthquakes, tornadoes, hurricanes, tsunamis, even the recurrent supervolcano of Yellowstone is "overdue"! So, as the Scouts say, "Be Prepared!" but don't fall for the hype for a particular day.

You're a lot more likely to die from texting while driving than from being hit by an asteroid!

Patricia Reiff, Director, Rice Space Institute

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## NASA's Ares Project on Facebook, YouTube, Twitter

Are you looking for the latest information on the Ares rockets that will return humans to the moon? Do you want to find videos of the successful Ares I-X test flight to show in your classroom? Find all of this and more on the Ares social media sites.

NASA's Ares Project is developing America's next generation of launch vehicles to replace the space shuttle and send people to explore the moon and beyond.

Stay up-to-date on developments with the Ares rockets by checking the following sites.

Ares on Facebook:

<http://www.facebook.com/NASA.Ares>

Ares TV on YouTube:

<http://www.youtube.com/AresTV>

Ares on TeacherTube:

<http://www.teachertube.com/videoList.php?pg=videonew&cid=38>

NASA Ares on Twitter:

[http://twitter.com/NASA\\_Ares](http://twitter.com/NASA_Ares)

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## American Geological Institute Publications

Alexandria, VA – The American Geological Institute (AGI) has released its 2010 Publications Catalog in PDF format on the AGI website.

Provided in both printer and browser-friendly versions, this catalog details all of AGI's publications from general interest books, to resource materials, DVDs, CD-ROMs, EARTH Magazine, AGI services and more. Most of the publications and services listed in the catalog are hyperlinked to allow users to simply click on the listing and be taken directly to the AGI publications page that features that item.

The catalog also highlights new items available from AGI. For the first time, EARTH Magazine T-Shirts are available for order through the AGI bookstore. The EARTH T-shirt is a high-grade, durable 100% cotton tee available in a range of sizes.

Also, the highly popular "Geoscience Handbook" is now in its 3rd printing. Slightly revised in this printing, it now has updated material such as the revised 2009 Geologic Timescale published by the Geological Society of America. The Handbook covers diverse subjects, from geophysics to geologic map symbols to GPS usage, and everything in between.

To download or view the 2010 AGI Publications and Services Catalog visit the AGI homepage <http://www.agiweb.org/>.

The American Geological Institute is a nonprofit federation of 46 geoscientific and professional associations that represents more than 120,000 geologists, geophysicists and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resiliency to natural hazards, and interaction with the environment.

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## New MyMoon News

*World Tales of the Moon* is now online, for your listening pleasure! Hear a variety of stories, and submit one of your own!

<http://www.lpi.usra.edu/mymoon/?p=tales/index>  
<<http://www.lpi.usra.edu/mymoon/?p=tales/index>>

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## 4th - 6th Grade Teachers - Disney Planet Challenge

Go to the site below...

<http://disney.go.com/planetchallenge/>

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## CCSC December Fireside Chats

### December 10: Listening to Jupiter's Radio Storms

Investigators have been studying radio emissions from Jupiter for over 50 years but scientists still disagree about what causes these emissions. Whitham Reeve, a

retired telecommunications engineer, first picked up Jupiter's emissions in Spring 2009 while participating in NASA's Radio JOVE Project. This was the first time "radio Jupiter" was recorded in Alaska. Come learn more as Whit discusses Jupiter's radio storms, what he heard in Spring 2009, and how you can build your own amateur radio telescope and tune in. The program begins at 7:00pm on Thursday December 10 at the BLM Campbell Creek Science Center (5600 Science Center Drive) and is free and open to the public. Stargazing will follow if the skies are clear. Please call 267-1247 for more information.

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## December 16: Stepping Back from the Edge-- Archaeological Discoveries in the Aleutians

For a long time, archaeologists believed that the ancient Unangan people of the Aleutian Islands lived only along the coasts. But in recent systematic searches for upland archaeological sites, scientists have discovered these sites are actually common. Come find out more about what work on Adak has revealed about these sites and the early people of the Aleutians.

Diane Hanson of the University of Alaska Anchorage will be our guide. The program begins at 7:00pm on Wednesday December 16 at the BLM Campbell Creek Science Center (5600 Science Center Drive) and is free and open to the public. Please call 267-1247 for more information.

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## Teacher Scholarships for Denali Field Courses

Alaska Geographic and the Murie Science and Learning Center are proud to announce 2010 Teacher Scholarships. Scholarships provide financial support for teachers to attend teacher trainings and field seminars in Denali National Park and Preserve. These field-based courses are small group intensives that expose teachers to science, research, and educational opportunities, using the wilderness of Denali as a classroom. The scholarship awards will cover 75% of the tuition and professional development credit. A few scholarships are also available for educators in rural Alaska that will cover 100% of the tuition and professional development credit, and will also provide a \$400 travel stipend.

For more information and to apply, please download the application form from the Murie Science and Learning Center's website at [www.murieslc.org](http://www.murieslc.org) <<http://www.murieslc.org>>. The deadline for applications is January 4. Email [courses@murieslc.org](mailto:courses@murieslc.org) <<mailto:courses@murieslc.org>> or call (907) 683-1269 with any questions.

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## Alaska Ocean Literacy Award

Nominations are being sought for an Alaska Ocean Literacy Award to be awarded to an individual, team or institution that has made a breakthrough in promoting ocean literacy in Alaska among a segment of the general

population via formal or informal education, outreach or other communications. This award is being sponsored by Alaska COSEE and will be presented at a Marine Gala in Anchorage on January 17. To nominate yourself or a colleague, download a Nomination Form

<<http://www.alaskasealife.org/alaskamarinegala/Ocean%20Leadership%20Award%20Nomination.doc>> (*word format*)

<<http://www.alaskasealife.org/alaskamarinegala/Ocean%20Leadership%20Award%20Nomination.doc>> and return through email, fax or mail by December 11. Contact [oceanawards@alaskasealife.org](mailto:oceanawards@alaskasealife.org) for more details.

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