

NEWS

VISTA - Elementary Teachers: Get paid to improve your science teaching!

The Virginia Initiative for Science Teaching and Achievement (VISTA) offers elementary teachers the opportunity to improve their science teaching skills through free professional development. VISTA also offer teachers a \$5,000 stipend, paid travel expenses, and \$1,000 toward classroom science supplies of their choice! You can download VISTA's flier [here](#) or apply [here](#).

[Celebrate Science!](#)

The 3rd USA Science & Engineering Festival, the largest science festival in the US, features nationwide contests and school programs, including the popular '[Nifty Fifty](#)' science speaker program - presented by InfoComm International. The Festival culminates in a Grand Finale Expo on April 26-27, 2014, with the US News STEM Solutions Conference on April 23-25, and Sneak Peek Friday - presented by the Department of Defense - on April 25. New this year: [X-STEM](#) - presented by Northrop Grumman Foundation and MedImmune - an Extreme STEM Symposium for students on April 24.

2014 Legislative Session

The Science Office expect a very busy legislative session this year, with much focus on standards and assessments. All education legislation can be tracked by accessing [this link](#). This site will provide a focused look at education-related bills in the House and Senate. You can access all bills in [Virginia's Legislative Information System](#). If you choose, you can quickly sign up and mark certain bills that you wish to track using the "Lobbyist in a Box" link. We will highlight bills that we think might interest this group through periodic updates.

2014 VAST PDI

The 2014 VAST PDI will be held in Roanoke, VA this year on November 19-22. This year's theme is [Sparking Innovation: Enhancing Student Learning](#). Teachers will have access to nationally known experts on various topics ranging from [Differentiation with Carol Tomlinson](#) to [Flipping the Science Classroom with author Jon Bergman](#) along with many others! Make plans to come early on Thursday to the pre-conference and spend a day learning how to differentiate your science curriculum with Carol Tomlinson, nationally known expert and author! There will also be extended learning opportunities through short courses that will be entirely **free** those who register for the conference! For more information on the 2014 VAST PDI, please visit www.vast.org and click on the Annual PDI tab in the top navigation bar.

Submit to Present a Workshop at 2014 PDI! NEW DEADLINE!

But VAST can't do this alone. VAST needs you! Please consider sharing your work by presenting at this year's PDI. In an effort to get more information out to teachers before they leave for summer break, there is a new deadline for proposals! **Deadline is March 1st!!** To submit a proposal, please go to the vast website at www.vast.org and click on annual PDI link in the navigation. Then click on the link called Presenting at VAST. Proposals are already coming in, so don't wait and miss out on this opportunity to take a leadership role!

Teacher Resources

[Understanding Science: How Science Really Works](#)

The Understanding Science Website is a resource that would be helpful to any science teacher. It offers a wealth of resources on the nature and process of science. The site has three major components: Understanding Science 101, For Teachers, and a Resource Library. Each component has resources that would be helpful. The Resource Library in particular offers a set of case studies that may be helpful to teachers such as [Cold fusion: A case study for scientific behavior](#).

How to Get Ready for AP Physics 1 and AP Physics 2

- Read the [AP Physics 1 and Physics 2 Curriculum Framework](#).
- Watch the video [AP Physics 1: Algebra-Based & AP Physics 2: Algebra-Based: An Overview of the Course Redesign \(.mp4\)](#), which describes the upcoming changes and explains key aspects of the curriculum framework.
- Become familiar with the [AP Course Audit](#) process.
- Plan to participate in [professional development](#) in 2014 to become more familiar with the course changes and receive support in planning.
- Join the [AP Physics Teacher Community](#) and collaborate with peers in planning for the new courses.

Update to the Standards of Learning (SOL) Science, Writing, and End-of-Course (EOC) Reading Practice Item Sets on the Virginia Department of Education Web Site

Additional practice items have been added to the grades 3, 5, and 8 science, End-of-Course (EOC) Earth Science, EOC Biology, EOC Chemistry, grades 5, 8, and EOC Writing, and EOC Reading practice item sets located at http://www.doe.virginia.gov/testing/sol/practice_items/index.shtml. The number of additional items varies by test, but in all cases, new items now follow the existing practice items.

More practice items will be added to the existing grades 3 through 8 reading practice item sets in early 2014. School divisions will be notified when additional practice items for these grade levels are available.

Should you have any questions, please contact the student assessment staff by e-mail at Student_Assessment@doe.virginia.gov or by phone at (804) 225-2102.

Dig Into Earth Science Education with USGS

The U.S. Geological Survey (USGS), a longtime Earth Science Week partner, offers a wealth of information on virtually every Earth science topic, from natural resources and hazards to geospatial data.

The USGS education web site (<http://education.usgs.gov>) includes lesson plans and other resources for K-12 students, educators, and others. Just in time for the Earth Science Week 2014 theme of “Earth’s Connected Systems,” for example, “Park Geology” in 3-D allows students and teachers to view the striking effects of the atmosphere and the hydrosphere on the geosphere in our National Parks.

USGS has thousands of free images and over 69,000 searchable publications such as books, maps, and charts online. If what you’re looking for still proves elusive, just “ask a geologist” (<http://walrus.wr.usgs.gov/ask-a-geologist>). And don’t forget to check out the USGS podcast series, CoreCast, featuring stories and insights on climate change, satellite monitoring, human health, wildlife disease, and more (<http://www.usgs.gov/corecast>).

National Park Videos Explore Climate Change

The National Park Service invites you to view videos on a variety of climate change topics, including citizen science, sea-level rise, glaciers, and more! Additional videos, currently in production, will be featured online in the coming months.

Through these educational videos, teachers and students can learn the basics about climate change topics, explore the National Park Service’s unique position in responding to climate change, understand the challenges of managing parks in the face of climate change, and find out more about the science behind climate change. See the videos online at

<http://www.nps.gov/subjects/climatechange/photosmultimedia.htm> and
<http://www.youtube.com/channel/UCAeQ9FnOCPjG-KLXf47Xj9Q>.

Safety

Council of State Science Supervisors – Science Education Safety Webpage

The PDF files below are for science safety guides. The guides are free to schools to download. To read or print the files you will need the Adobe Acrobat Reader installed on your computer.

The guides were published by Council of State Science Supervisors (CSSS) with support from the American Chemical Society, the Eisenhower National Clearinghouse for Mathematics and Science Education, the National Aeronautics and Space Administration, DuPont Corporation, Intel Corporation, American Chemical Society, and the National Institutes of Health. You may print and distribute the booklet to teachers and other educators.

Science Safety Information to Download:

[Science and Safety, Making the Connection](#) (PDF) - A Secondary Safety Guide

General Science Safety

[Checklist](#)

[Recommendations](#)

Safety Web Links

[NSTA Safety in the Science Classroom](#)

[NSTA's Laboratory Science](#)

[Flinn Scientific Safety Pages](#)

[Flinn School Laboratory Safety Courses](#)

Teacher Opportunities

Modeling Instruction Training and Professional Development

Virginia Instructors of Physics and St. Catherine's School in Richmond, VA are hosting their follow-up 1-day free workshop titled "Modeling Investigations to Teach Electrostatics and Potential." In this workshop, the participants will be introduced to additional activities and techniques that have grown out of the inquiry method of teaching physics called Modeling Instruction. The participants will take on the role of high school physics students as the workshop leaders use the modeling method to teach the ideas of Electrostatics and Potential (SOL PH.5d). This will be a hands-on workshop and the participants will leave with ideas, strategies, and worksheets that they can immediately implement into their classrooms and enrich their curriculum. (see attachment)

Sponsored by the Virginia Association of Science Teachers (VAST) & James Madison University

Date: February 8, 2014

Time: 9:00 am – 3:30 pm

Place: The Armfield Science Center, St. Catherine's School, 6001 Grove Avenue, Richmond, Virginia 23226

Professional Development: 7.5 Hours

Cost: There is no cost and all are welcome to attend.

(American Association of Petroleum Geologists) AAPG Offers Instructors Videos, Expert Speakers

With members ranging from professional geologists and corporate executives to students and academics, the American Association of Petroleum Geologists (AAPG) has plenty to offer Earth science educators. AAPG, a longtime AGI member society and a major Earth Science Week partner, aims to foster scientific research and promote the science of geology.

In addition to AGI's K-5 GeoSource and Earth Science Week sites, AAPG's K-12 Teaching Resources site at <http://www.aapg.org/k12resources/> features the AAPG video library of more than 300 educational videos. AAPG's Youth Education Activities Committee is currently building and expanding this resource.

AAPG's Visiting Geoscientist program allows colleges and universities to arrange for a geoscientist to visit with a group of students for a full day or a half-day. K-12 teachers also may request visits, though availability at the pre-college level is limited. To arrange a visit, go to <http://www.aapg.org/education/vgp/>. Universities and geological societies can arrange similar visits through the Distinguished Lecture program. For details, see http://www.aapg.org/education/dist_lect/.

CDC 2014 Science Ambassador Workshop

The CDC (Centers for Disease Control and Prevention) in Atlanta is announcing the opening of registration for its 2014 Science Ambassador Workshop to be held on its main campus in Atlanta from July 21-15, 2014. Middle and high school science and math teachers (including those associated with health-related career programs) are invited to participate in this week-long workshop. During the workshop, participants will have the opportunity to:

- Attend seminars on current public health topics presented by CDC scientists;
- Collaborate with CDC scientists to develop lessons plans based on public health science topics; these will be published on CDC's website;
- Expand professional networks;
- Enhance your professional network of educators and public health professionals; and
- Tour CDC's state-of-the-art headquarters, including the Emergency Operations Center and the David J. Sencer CDC Museum.

There is no charge or registration fee. However, participants will need to cover their own transportation, lodging and meals. The deadline to register is April 15, 2014. We are applying to award continuing education units to participants. Please check with the below website to check on the status of this. Additional facts about the program and information on how to register may be found at <http://www.cdc.gov/scienceambassador/become.html>. You may also contact us at scienceambassador@cdc.gov.

Service Learning in the Dynamic Classroom

EarthEcho is offering a Google Hangout on Feb. 5th at 1pm titled "Service Learning in the Dynamic Classroom." This is a professional development type hangout, aimed at addressing some of the challenges that educators face while making a shift towards utilizing service learning in the classroom. EarthEcho will also be touching on digital tools that can be helpful when in the process, as February 5th is Digital Learning Day. The hangout will be held as a panel discussion, with sufficient time for Q&A near the end. Any educator who wants to incorporate service learning into their classrooms should consider this Google Hangout. <http://earthecho.org/news/HOA-020514>

EarthEcho Educator Grants

In partnership with the Captain Planet Foundation, EarthEcho is offering classroom grants for educators who utilize EarthEcho materials in their classrooms. This is a great opportunity for educators to purchase new supplies or tech for their classrooms to improve instruction and student engagement. EarthEcho would encourage all educators to look in to this grant, whether they have already been utilizing EarthEcho materials in their classrooms or are just looking for something new to add to their curriculum. Grants of up to **\$1,500** are available and the application is due **Feb 15th**. More information can be found here: <http://earthecho.org/news/CPFGrant-021514>

Kid Wind Challenges

Virginia is hosting two regional KidWind Challenges this year, in Virginia Beach and Northern Virginia! Registration is now open and there is limited space for each challenge so be sure to register your team early! A teacher workshop is also planned for February 8th, and you can also register for those at the [KidWind website](#). See the attached flyers for more information about these great events!

Student Opportunities

Summer Enrichment Experience (SEE)

High School students are eligible to apply to the Summer Enrichment Experience (SEE) at the Edward Via College of Osteopathic Medicine (VCOM) in Blacksburg, VA. This 5-day summer camp is designed to introduce high school students to human anatomy and its relevance to healthy lifestyles and medicine. The camp will be held over two separate weeks in July – one for male students and one for females. Students spend hands-on time in the VCOM Anatomy lab each day and participate in guided learning experiences with VCOM medical students. Any student selected to participate who lives more than 45 miles from VCOM will be provided free lodging at a local hotel (see details about supervision) along with breakfast and lunch each day. We also offer meal scholarships to cover evening meal costs for students with financial need. The application and all materials are available on the VCOM website at <http://www.vcom.vt.edu/news/SEE.html>. The application window is now open and VT will be accepting applications from interested students until the May 1st deadline.

2014 Craig Tufts' Youth and Nature Essay Contest Now Open.

In honor of long-standing employee and naturalist, Craig Tufts, the family of Craig Tufts, Family Summits Inc., and the National Wildlife Federation (NWF) invites youth to enter the 5th Annual Craig Tufts Educational Essay Scholarship competition. This competition is open to any young person between the ages of 8 and 18 to submit an essay ([guidelines and requirements](#)). The selected entry will receive a once in a life-time experience to attend a week-long summer outdoor adventure camp with a parent or guardian in Pacific Grove, CA. Entries are due by **March 28th**.

Trees for Wildlife – Spring 2014 Application Period Open

NWF's Trees for Wildlife program is an educational and community service program dedicated to teaching children and adults about the important role of trees for both wildlife and our communities. Youth and school groups may apply to potential receive free native trees, a planting guide and resource guide, along with guidance from NWF staff to assist in planning your tree planting event or community tree giveaway event. Review the [guidelines](#) and [apply](#) today. Time is limited. All applications must be received by February 21st for Spring consideration.

Forestry Camp

Do you have students aged 13-16 who are interested in natural sciences? Please consider nominating them to attend Holiday Lake Forestry Camp, held June 16-21 at Holiday Lake 4-H Center near Appomattox. Led by natural resource professionals, this residential camp provides field-based learning, skill development, and an introduction to natural resource careers. All campers receive a substantial scholarship, keeping out-of-pocket costs low. The nomination form and information can be found at www.dof.virginia.gov/camp. The nomination deadline is April 11. Please contact Ellen Powell (ellen.powell@dof.virginia.gov) if you have questions.

Highlighted Superintendent's Memos

- MEMO #008-14
[Tracking Legislation During the 2014 General Assembly](#)
- MEMO #007-14
[Spring Graduate-Level Course for K-12 Educators of English Language Learners \(ELLs\)](#)
- MEMO #004-14
[2014 National Youth Science Camp \(NYSC\)](#)
- MEMO #002-14
[Presidential Awards for Excellence in Mathematics and Science Teaching \(PAEMST\) Program](#)
- MEMO #001-14
[Digital Learning Day – February 5, 2014](#) 

- MEMO #018-14
[New Digital Learning Resources](#) (Astronomy iTunesU course)
- MEMO #017-14
[2014 Advanced Placement Exam Fee Reduction Information](#)
- MEMO #016-14
[School Safety Audit: The Secondary School Climate Survey](#)

As always, please contact one of us if you have questions.

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