

## VDOE Science Update

### August 4, 2015

#### NEWS

#### ***Three Teachers Selected as State Science Finalists for Presidential Math & Science Teaching Award***

Three Virginia science teachers have been selected as state finalists for the 2015 Presidential Award for Excellence in Mathematics and Science Teaching. The award — regarded as the nation’s top honor for mathematics and science teachers — recognizes teachers who develop and implement high-quality instructional programs that improve student learning.

The 2015 Virginia finalists — three public school teachers in grades 7-12 — are as follows:

- Robert Carroll — Plaza Middle School, Virginia Beach, for science
- Stephanie Sowers — Peasley Middle School, Gloucester County, for science
- Camilla Walck — Princess Anne High School, Virginia Beach, for science

For a full press release, visit [VDOE News](#).

#### ***Mathematics and Science Partnership Competitive Program for 2015 Mini Grant Proposals Intent to Submit Due – Friday, August 7, 2015***

Superintendent’s Memo 188-15 from July 31, 2015 announces the Mathematics and Science Partnership (MSP) Mini-grants. School divisions that are applying for an MSP Mini-grant must target schools that meet the definition of a high-needs school.

In order for school divisions to be eligible for a Virginia MSP Mini-Grant, they must demonstrate student need at the school level. Within the applicant school division, only schools that meet the definition of high-needs are eligible to participate. The following must be met for at least one of the school divisions in the partnership:

1. in **mathematics**, is a school that is:
  - a. “Warned in Mathematics” under the state’s school accreditation process and did not meet mathematics “Annual Measurable Objectives” (AMOs) under the federal *Elementary and Secondary Education Act of 1965* (ESEA), as amended by the *No Child Left Behind Act of 2001* (NCLB,) overall, or in any subgroup; and/or
  - b. is identified as a Focus or Priority School, where mathematics was an area identified for improvement for the **2014-2015** school year.
2. in **science**, is a school that is “Warned in Science” under the state’s school accreditation process.

Additional details can be found in the [Superintendent’s Memo 188-15](#).

#### ***2015 Virginia Association of Science Teachers Annual Professional Development Institute***

The Virginia Association of Science Teachers (VAST) will hold its annual statewide Professional Development Institute (PDI) on **November 19-21, 2015**, at the Westfield Marriott in Chantilly, Virginia. The VAST PDI supports the 2010 *Science Standards of Learning* by offering over 200 concurrent sessions, several field trips, and nationally known keynote speakers. Educators will be able to network with colleagues from all over the state, gain new ideas to enhance their content knowledge, and experience

cutting-edge technology. Educators at every level of science will find many topics of interest with which to build their expertise.

For the first time this year, the VAST PDI will feature the Donna R. Sterling Institute, [Uncovering Student Thinking in Science Through Formative Assessment](#). In this one day workshop, participants will

- **learn** how to use formative assessment probes to uncover and analyze student thinking about key science concepts;
- **practice** formative assessment strategies that inform teaching and deepen students' understanding of science content; and
- **apply** techniques that weave assessment into the process of instruction and learning.

Registration and the PDI schedule of events can be found on the VAST Web site at <http://www.vast.org>. The PDI also provides educators the opportunity to earn recertification points, and they may choose the option of earning college credit.

### ***Environmental Literacy Indicator Tool (ELIT)*** ***Due September 1, 2015***

An e-mail message was sent to school division superintendents this week on April 29, 2015. Superintendents have been asked to designate a person to complete the ELIT for her/his school division. The following is a portion of the message sent to superintendents.

As a part of the Governor McAuliffe's commitment to environmental literacy, Virginia school divisions are asked to complete a Web-based data collection instrument called the **Environmental Literacy Indicator Tool (ELIT)**, developed by the Chesapeake Bay Program of the United States

Environmental Protection Agency. The purpose of the ELIT is to assist school divisions in collecting information documenting their progress in meeting the Bay Agreement's Environmental Literacy Goal and Outcomes.



The ELIT will be launched on **May 8, 2015**, following two Chesapeake Bay Watershed Agreement webinars that were announced in [Superintendent's Memo No. 104-15](#). **Data may not be entered until May 8, 2015.** The Chesapeake Bay Program asks the ELIT be completed by **September 1, 2015**. Each school division is asked to assign one person to complete the ELIT. The ELIT is designed to allow the person completing the Web-based tool to begin entering the data and return at his/her convenience as long as the same log-on address is being used each time.

## **Teacher Resources**

### ***Science Resources***

If you are in the process of planning professional development for science teachers or administrator, please consider using all or parts of the [VDOE science resources](#). The resources from the science institutes were designed to be used as professional development for teams of teachers. Parts of these professional development modules could be used/modified to create school-level or division-level professional development.

- [2010 Institute](#) – The focus of the institute was Scientific Inquiry and the Nature of Science. Presentations and supporting materials are provided.
- [2012 Institute](#) – The focus of the institute was the development conceptual understanding through inquiry.

Additional science resources are available for you to consider sharing with science teachers and administrators.

- [Virginia Science Activities, Models & Simulations \(SAMS\)](#) – Activities, models and simulations correlated to the [2010 Science Standards of Learning and Curriculum Framework](#).
- [Practices for Science Investigation Progression](#) (PDF) – The Practices for Science Investigation Progression chart identifies the grade level at which specific science skills/practices are formally introduced and how they progress throughout the 2010 Science Standards of Learning.
- [Virginia Animals and their Habitats](#) – A model comprehensive, cross-curricular second-grade unit that addresses 40 grade-two Virginia Standards of Learning (SOL) in science, mathematics, English, and history and social science.
- [Lessons From the Bay](#) – Activities and projects for grades 3-6 related to protecting and restoring the Chesapeake Bay watershed
- The [LENS Cornerstone Assessments](#) are performance-based assessment and were created as a result of a [MSP Grant](#) to ODU in partnership with local school divisions and partner institutions of higher education. The Cornerstone Assessments **use knowledge and skills related to scientific investigation** to inform instruction, inform student learning, and measure student progress over time (beginning-, middle-, and end- of the year). The Cornerstone Assessments are available for use if they meet the needs of your students.

### ***Plan Activities Now for Earth Science Week 2015***

The school year is fast approaching and you may want to prepare for Earth Science Week 2015 (October 11-17). Now is the time to plan your activities. Take this opportunity to make a wish list: How would you like your students to celebrate Earth Science Week?

You can promote this year's theme - "Visualizing Earth Systems" - by preparing activities that help your students explore visual representations of data on the geosphere, hydrosphere, atmosphere, and biosphere. Start with the exciting classroom activities featured on the Earth Science Week website at <http://www.earthsciweek.org/classroom-activities>.

Leading up to the October celebration, you'll see more and more Earth Science Week events, both local and nationwide, listed online at <http://www.earthsciweek.org/upcoming-events>. For more ideas, read about successful past events at <http://www.earthsciweek.org/highlights> or see recommendations on how to get involved at <http://www.earthsciweek.org/event-planning>.

### ***Locally Developed Assessments Web site***

The Virginia Department of Education has published the [Locally Developed Assessments](#) Web site to assist school divisions in their transition from specific SOL tests to locally developed assessments. This page includes FAQ and definitions of key terms. In addition, the performance task development cycle that the mathematics department used in professional development on performance tasks in 2012 was revised to provide guidance on development in areas other than mathematics.

### ***BioInteractive - EarthViewer for All!***

Now available: [online and downloadable versions](#) of our popular EarthViewer app, with additional

features. Now you can explore the science of Earth's deep history on any computer or tablet. See continents grow and shift over billions of years. Discover how sea level has changed since the last glacial maximum and how it will continue to change — how will your city fare?

## Teacher Opportunities

### ***Every Kid in a Park Announcement Webinars***

As part of President Obama's commitment to protect our Nation's unique outdoor spaces and ensure that every American has the opportunity to visit and enjoy them, the "**Every Kid in a Park**" initiative was announced in early 2015 to provide all 4th grade students and their families with free admission to their federal lands and waters for a full year.

You may register now to Participate in the Announcement Webinar

Join us for a webinar to learn the final details about this exciting initiative, and ways that you can participate. Speakers will introduce the various program developments and answer your questions.

The webinar will be held three times during this month - August 10th, August 12th, and August 14th during the 3:00 - 4:00 pm (EST) hour. Please click on a link below to register.

**August 10, 2015**

3:00 – 4:00 pm (EST)

[Registration Link](#)

**August 12, 2015**

3:00 – 4:00 pm (EST)

[Registration Link](#)

**August 14, 2015**

3:00 – 4:00 pm (EST)

[Registration Link](#)

The webinar will be recorded and available after the final webinar session. If you have any additional questions, please contact the Every Kid in a Park Team via email at: [everykidinapark@ios.doi.gov](mailto:everykidinapark@ios.doi.gov)

For all three webinars, please use the following conference call line: 888-455-3079, Passcode: 8445870

### ***Mini-Grant Deadline Extended to August 19***

Do you have an idea for next school year? Need some seed money to make it happen? VAST may be able to help. The mini-grant deadline has been extended to **August 19**.

#### **Apply now for a:**

- VAST Mini-Grant for Teaching
- TACT Mini Grant to Enhance Teaching of Chemistry
- AIPG Russ Wayland Mini Grant to Improve Teaching of Geology

Mini-grant Applications are due postmarked by August 19, 2015. Email [timothy\\_couillard@ccpsnet.net](mailto:timothy_couillard@ccpsnet.net) for more information or visit the [VAST Mini-Grant webpage](#).

### ***VAST RISE Awards Deadline Approaching***

Please make time before summer ends to recognize the accomplishments of an individual who has "made a difference" in science education. Nominate them for a **VAST Recognition In Science Education (RISE) Award**. Nominees do NOT need to be a member of VAST. Awardees will be recognized at the November 2015 VAST PDI and will be reimbursed up to \$150 to attend the conference.

For details and application forms, please visit the [VAST Awards webpage](#).

Nominations are due by **August 19, 2015**. Email [timothy\\_couillard@ccpsnet.net](mailto:timothy_couillard@ccpsnet.net) for more information. ***Save the Date for the Statewide Environmental Education Conference - Oct. 7 - 9 at Natural Bridge***

Planning is underway for the statewide environmental education conference to be held at Natural Bridge Oct. 7 - 9. Details will be posted on the [Virginia Naturally website](#) as they become available.



We are currently seeking keynote speakers for Oct. 7 and 8. Please tell us about speakers that you have seen or would like to recommend by filling out this [short survey](#).

## Student Opportunities

### ***Virginia Junior Academy of Sciences***

It is time for students to begin thinking about science research projects and preparing for the 2016 [Virginia Junior Academy of Science \(VJAS\)](#) Research Symposium will be held on May 17-19, 2016, at University of Mary Washington University (UMW). VJAS, a state chapter of the American Academy of Science, is dedicated to the advancement of science by discovering and encouraging scientific aptitude among Virginia's middle and high school students. Students who present at the Research Symposium have an opportunity for **publishing their science research** and receive **awards and scholarships**.

The deadline for submitting papers for this year's symposium is February 24, 2016. Visit the [VJAS](#) website for more information.

### ***Let's Get Every Kid in a Park***

Starting in September, every fourth-grader in the nation will receive an "Every Kid in a Park" pass that's good for free admission to all of America's federal lands and waters — for them and their families — for a full year. Many children don't visit these places because they can't get there easily, so federal resources will be available to help schools and families arrange field trips and visits by providing key trip-planning tools, and helping to cover transportation costs for schools with the greatest financial need. Learn more at this [fact sheet](#).

## Highlighted Superintendent's Memos

- MEMO 148-15  
[Middle Grades Science Preparation and High School Laboratory Science Courses](#)
- MEMO 188-15  
[Mathematics and Science Partnership Competitive Program for 2015 Mini Grant Proposals](#) 

As always, please contact one of VDOE Science Team if you have questions.

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