Developing a Competitive Application for the Shell Science Lab Challenge

Presented by: Eric Crossley and Ruth Ruud

September 20, 2012
6:30 p.m. – 8:00 p.m. Eastern time
Introducing today’s presenters…

**Eric Crossley**
- Director of Science Education Competitions at NSTA

**Ruth Ruud**
- Serves on the Shell Lab Challenge panel and NSTA Recommends
- Adjunct instructor at Cleveland State University
- Former science teacher, elementary principal, Grants and Special projects coordinator
Shell Science Lab Challenge

A Program of NSTA
Agenda

• The Award
• Eligibility
• Criteria for Judging
• Award Submission Requirements
• Challenge Narrative to Answer
  – Science instructional strategies
  – Current and desired lab resources
  – Laboratory activity
• Award Checklist
• Submitting the Application
• Questions
Shell Science Lab Challenge
Overview

• Shell and the National Science Teachers Association (NSTA) in partnership with VWR have partnered to recognize outstanding middle and high school programs for their exemplary approaches to science lab instruction utilizing limited school and laboratory resources.

• The Challenge will:

  – showcase the work of teachers who submit innovative, replicable laboratory activity using limited equipment/resources;

  – award teachers/schools with additional tools, resources, and rich professional development opportunities needed to support high-quality science teaching to strengthen their existing capabilities.
18 Winners Selected
** Up to one in each of 18 NSTA Districts/Regions***

Up to 18 Regional Winners Advance for National Consideration
  – Up to 13 regional winner schools not advancing as a national finalist will each receive a total prize package valued at $3,000
  – 4 National Finalist schools will each receive a total prize package valued at $8,500
  – 1 Grand Prize Winning school will receive a total prize package valued at $20,000
Regional Winner prize package valued at $3,000 includes:

- $1,000 Shell cash grant for the school,
- $1,000 in donated lab equipment, and
- $1,000 in NSTA prizes.

National Finalist prize package valued at $8,500 includes:

- $3,000 Shell cash, grant for the school,
- $3,000 in donated lab equipment,
- $1,000 in NSTA prizes, and
- $1,500 in a sponsored trip to the NSTA National Conference on Science Education for one teacher.
Grand Prize Winning school prize package (1) valued at $20,000 includes:

- $8,000 Shell cash grant for the school,
- $8,000 in donated lab equipment,
- $1,000 in NSTA prizes,
- $3,000 in sponsored trips to the NSTA National Conference on Science Education for two teachers.
The National Finalists and Grand Prize Winner will be honored at the NSTA Teacher Awards Gala at NSTA’s National Conference on Science Education in San Antonio Texas, April 11-14, 2013. (Expense-paid trip for winning teachers.)
Let’s pause for questions.
Eligibility

• Teachers of science in grades 6-12, in the 50 United States, the U.S. jurisdictions, and Canada.

• The jurisdictions include Washington, DC, Puerto Rico, Department of Defense Schools, and the U.S. territories as a group (American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands).

• Teachers may submit an entry as an individual applicant or as a team.

• A school may submit an unlimited number of applications.

• A teacher is limited to one application per year (whether submitting as an individual or team applicant).
Criteria For Judging

• Demonstrated science inquiry innovation in the middle or high school classroom, with limited equipment and materials.
• Demonstrated impact and engagement with students.
• Support of middle and high school education science standards.
• Use of safety practices.
• Demonstrated need for support to improve science laboratory experiences.
Selection Procedure

• The Shell Science Lab Challenge Judging Panel will review applications after the November 12th due date.
• The Judging Panel will select up to 54 regional finalists (including a possible of three regional finalists in each of the 18 regions that mirror the NSTA Districts).
• After initial Nov.12th deadline, the regional finalists will be asked to provide additional responses including a short video (3 to 5 minutes) that displays the school’s current science laboratory facilities. (due Jan.18, 2013)
Selection Procedure
- Continued-

• The regional finalists will provide further explanation of how winning equipment/resources would make a difference in the applicant’s science teaching and learning experience for students.

• The Judging Panel will select up to 18 regional winners.

• The Grand Prize Winner and four National Finalists will be selected from the pool of regional winners.
Poll Question

What type of school do you teach in?

A. Suburban School
B. Urban school
C. Rural school
D. Other
Submission Requirements

1. Completed and signed application with all questions answered.

2. A narrative describing the applicant’s science laboratory practices and innovative use of limited laboratory equipment and resources. (see separate Requirements for Narrative)

3. A letter of support/validation from principal or other education supervisor who can describe the merit of the applicant’s work, and validate, attest to, or support statements made in the application narrative. (1-2 pages)

4. Resume or vita with overview of teaching experience, education, community involvement, and previous awards/recognition. (1-2 pages each; submit vita for each member of applicant team.)
Format Requirements

Format Requirements for Narrative:
• 12 point size in standard font
• double spaced
• labels on each section
• all pages numbered

Format for other Correspondence
• vita and letter of recommendation may be single spaced
Narrative Question One
- Science Instructional Strategies -

In two maximum double-spaced pages:

• State your science teaching philosophy.
• State the strategies you use to teach science.
• State how you work toward student understanding of science concepts.
• State how science inquiry is utilized in your lab activities using your current facilities.
Narrative Question Two
- Current and Desired Lab Resources -

In **two maximum double-spaced pages:**

- Describe your school’s current laboratory facilities and what types of equipment and/or resources are in the facilities.
- Explain why laboratory upgrade support is needed.
- Explain how the lab upgrade would impact your teaching and the students’ content knowledge.
In two maximum double-spaced pages:
Describe an innovative, replicable lab activity that you have implemented using limited school lab resources with assessments.

• Explain the purpose and outcome with materials needed
• Explain how the activity relates to State and/or National Science Education Standards.
• State how you address safety requirements with this lab activity.
Let’s pause for questions.
Judges Look For

• The science strategies used with limited lab resources were described.
• Students’ understanding of science concepts is presented.
• How science inquiry is utilized in your lab activities
• The need for support for a lab upgrade and how the newly acquired resources would enhance students’ science knowledge.
Judges Look For

- Description of the lab activity that is innovative, grade appropriate, and can be replicated in other science labs.
- Stated National/State standards.
- Stated safety requirements.
- Stated assessments with the lab activity
- Stated purpose and outcome with materials needed for lab activity
Judges Look For

• The principal has read and signed the application.
• The principal’s letter attests to what is written in the application, supporting with additional statements.
• The principal describes the merit’s of the applicant’s work in the letter of support.
Judges Look For

• Page limits, spacing, and type formats shall be followed.
• No extra materials shall be submitted with the application.
• All questions shall be answered.
• Directions shall be followed.
Award Checklist

• Complete and sign the application form and have it signed by your principal
• Complete all the questions on the application cover page.
• Include Vita or resume for each applicant - 2 pages maximum
• Include letter of support/validation – 2 pages maximum.
• Label each section and number each page.
Award Checklist
- Continued -

• Have a colleague review the checklist and application.
• Check for correct spelling.
• Type the Narrative on standard 8-1/2 x 11 white paper, double-spaced, using standard 12-point font with 1 inch margins. (Vitae/resume and letter of support may be single-spaced.)
• Submit all material in electronic submissions as one PDF file.

Note: Electronic entries are preferred; however, mailed hard copies and Fax copies received by the deadline will also be accepted.
Submitting the Application

- Application must be received by 11:59 pm Eastern Time, November 12, 2012
- Submit your application and supporting materials to NSTA’s Shell Science Lab Challenge/NSTA at one of the following:
  - (Electronic) shellsciencelab@nsta.org
  - (Fax) 703.243.7177
  - (Mail)
    NSTA/Shell Science Lab Challenge
    National Science Teachers Association
    1840 Wilson Boulevard
    Arlington, VA 22201

Upon receipt, applications become the property of NSTA. Applications will not be returned to applicants. Late applications will not be accepted.
Poll Question

What type of lab resources do you have now?

A. No lab resources
B. Some lab resources, but they are dated
C. Well equipped lab
D. Other
Questions Can Be Submitted

- You can send questions after the webinar to shellsciencelab@nsta.org

- Visit the website at http://shellsciencelab.nsta.org
Shell Science Lab Challenge

Thank you to Shell, VWR, and NSTA for partnering to recognize outstanding middle and high school programs for exemplary approaches to lab instruction utilizing limited lab resources.
Thanks to today’s presenters!

Eric Crossley

Ruth Ruud
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