



Smithsonian Institution
National Science Resources Center

The

2011

Smithsonian

Science Education

Academies

for Teachers



The 2011 Smithsonian Science Education Academies for Teachers

The National Science Resources Center (NSRC) is an organization of the Smithsonian Institution and a world-recognized leader in improving the quality of science teaching and learning. For the seventh summer in a row, the NSRC's Professional Development Center is offering a series of exciting professional development opportunities for science teachers, the **Smithsonian Science Education Academies for Teachers**—

- **Energy: Past, Present, & Future;**
- **Biodiversity; and**
- **Earth's History & Global Change.**

Join colleagues from across the country in these unique opportunities to interact with Smithsonian educators, curators, and research scientists. For a full week you will have behind-the-scenes access to the museums, collections, and research centers in the Washington, D.C., area. Through exhibit exploration, lectures, group projects, hands-on activities, and field trips, you will study science themes related to energy resources, the biodiversity of our planet, or planetary processes.

Your experiences will provide you with information and resources that can be used in your classroom. For more details on each science academy, theme, and learning objective, please visit us online at www.scienceteachersacademies.si.edu.





Energy: Past, Present, and Future:

June 26–July 1, 2011

How has our use of energy resources evolved? What new technologies will help solve our energy needs? This academy looks at the history of energy development and use in the United States, current energy needs, and alternative energy sources for the future. Topics to be explored include fossil fuels, the generation of electricity, solar energy, wind power, fuel cells, other energy sources, and the use of energy in transportation.



Biodiversity: July 10–15, 2011

What problems do scientists encounter when trying to determine biodiversity? What are the impacts of global climate change and human activities on biodiversity? The Biodiversity Academy consists of exciting and unique experiences designed to introduce educators to a variety of Earth's living organisms and enhance our understanding of the nature and origins of biodiversity.



Earth's History and Global Change: July 24–29, 2011

How was the Earth formed? What do fossils tell us about global change? How is human activity altering the systems of our planet? These are some of the questions investigated during this academy, which looks at change from the perspective of the history of our planet, from its formation, through the origins of life and its impacts, to current issues related to human-induced climate change.

Who Should Attend?

Teachers of science in grades 5–12, working in a school or museum, should attend these academies. Each academy participant will receive a certificate of attendance for 36 contact hours upon full completion of the weeklong program.

Academy Goals & Objectives

- Develop your understanding of key concepts related to the theme of each academy.
- Explore the academy science theme through use of museum collections and other scientific and educational resources of the Smithsonian Institution.
- Experience pedagogical techniques that facilitate a hands-on, inquiry approach to teaching science.
- Increase your awareness and content knowledge about most recent issues and concerns in science.

Graduate Credits—Optional

Three graduate credits are offered for each academy through our partnership with the Virginia Commonwealth University (VCU). These graduate credits cost an additional fee of \$375 per academy. To earn graduate credits, teachers must attend and participate in all sessions during the week and complete a special post-assignment.

How Do I Register?

A nonrefundable fee of **\$1,990*** covers:

- course materials
- hotel accommodations near the National Mall
- a Sunday evening dinner and orientation
- breakfast and lunch daily
- a special Thursday evening dinner
- field trip transportation

When we receive your registration, we will forward hotel and other information to you. To receive an Early Bird Registration discount of **\$100**, you must register by **May 14, 2011**. Registration forms can be found online at: www.nsrconline.org/professional_development/SSEAT_overview.html and registrations can be completed online.

*Additional discounts may apply; for more details and registration information, please visit us online at: www.nsrconline.org/professional_development/SSEAT_overview.html.

Academies Do Not Include:

- Travel to and from Washington, D.C.
- Parking fees or airport transfers
- Evening meals on Monday through Wednesday
- Cost for optional college credits

Questions: Please direct all inquiries to nsrpdcenter@si.edu or crowellj@si.edu or call (202) 633-2968.

What Do Previous Teacher-Attendees Say?

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- “This was one of the most amazing experiences in my life; the program, faculty and teachers exceeded my highest expectations.”
- “The weeklong program provided me with the tools of best practice in science pedagogy and introduced several hands-on labs and activities that I will be able to translate into more enriched and engaging lessons in my middle school science classroom.”
- “After coming home, I dissected the information we learned and went through all of the materials that were given to me. I was amazed how pertinent and valuable this week has been to my teaching career.”
- “Thank you for a wonderful week. This is a great resource for classroom teachers and I was lucky to have the opportunity to attend!”

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Smithsonian Institution
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MRC 952
901 D Street, SW, Suite 704-B
Washington, DC 20024

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Energy: Past, Present, and Future

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Biodiversity: July 10–15, 2011



Earth's History and Global Change

July 24–29, 2011

This brochure was printed on paper having a postconsumer recycled content of 30%, thus saving

- 1 tree
- 4 lbs water-borne waste
- 625 gal wastewater flow
- 69 lbs solid waste
- 136 lbs net greenhouse gases
- 1,042,440 BTUs energy

