

Enhancing public understanding of climate change through museum programs

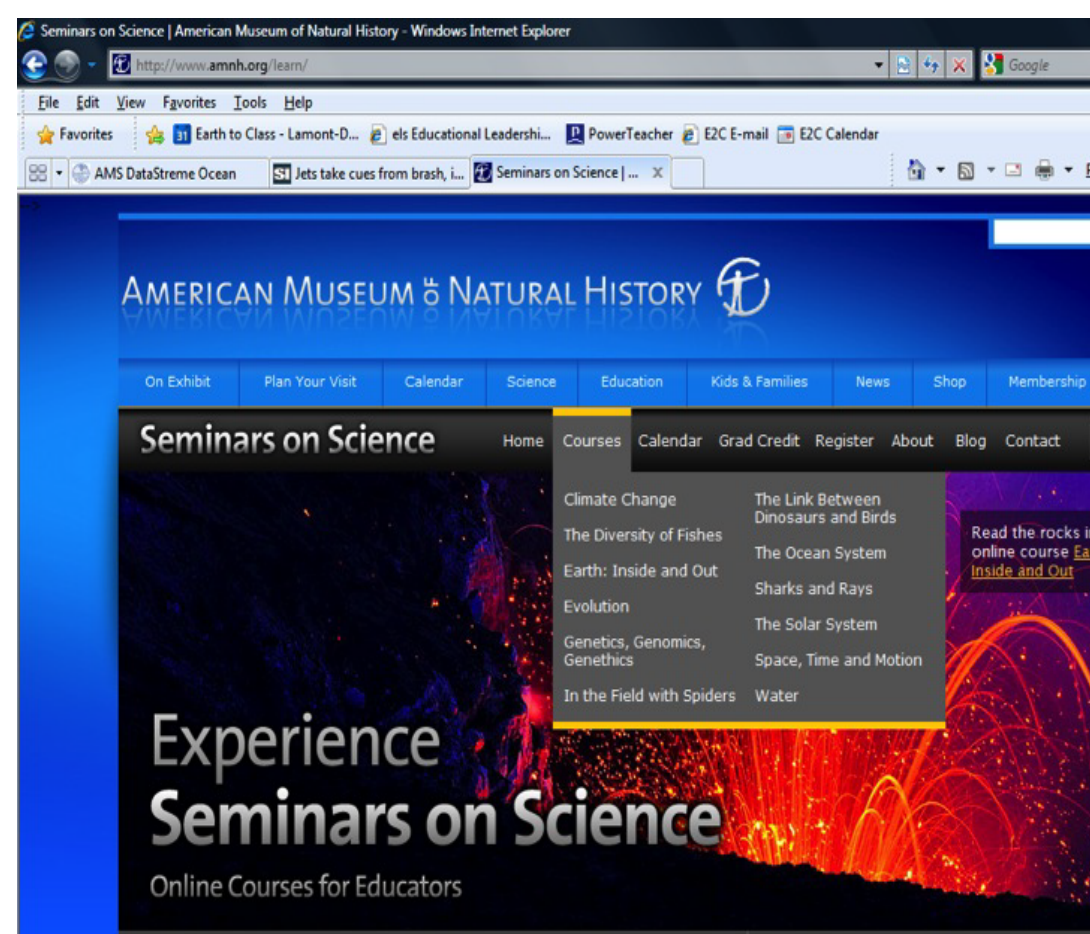
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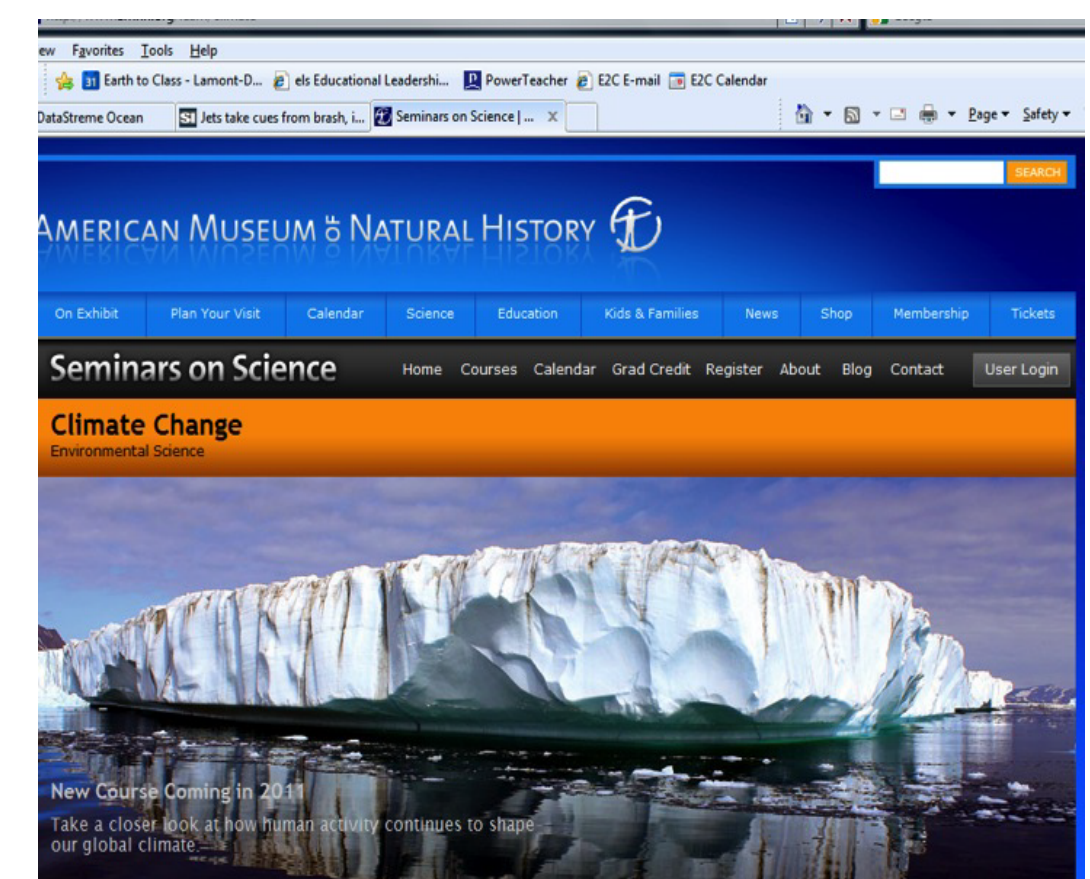
The American Museum of Natural History (AMNH) has expanded its informal science education programs during the past few years to focus on the curriculum standards and achievement goals of the formal science education world in schools and universities. Pre-service and in-service teachers can partake of extensive professional development resources and programs.

School year and summer offerings are also available for students, families, and the general public. www.amnh.org/education



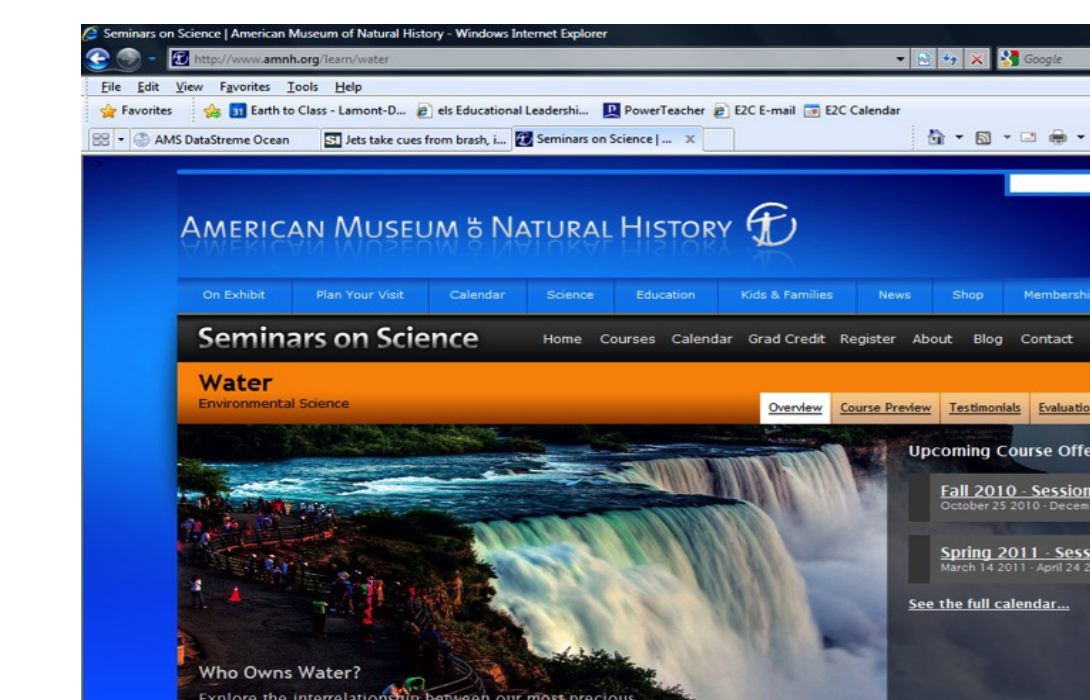
“Seminars on Science” (<http://www.amnh.org/learn/>)

- > Set of six-week, online programs that focus on “The Ocean,” “Earth Inside and Out,” “Climate Change,” and other topics from Earth, Space, and Life Sciences
- > Based on cutting-edge science, including research at AMNH, and interpretation and dissemination curators offer through permanent or temporary exhibits
- > Examples: “Climate Change: The Threat to Life and a New Energy Future” and “WATER H₂O=Life” provided visitors with cutting-edge information during their display periods from Oct 2007 to Aug 2009



AMNH visualizations

- > Central now to all interactive programs showcasing AMNH resources for learning and teaching
- > Include videos of scientists at work and digital visualizations that offer a renewed focus on the use of dioramas depicting ecosystems
- > Visually-rich space shows in the Hayden Planetarium of the Rose Center for Earth and Space Science, such as “Journey to the Stars” (<http://www.amnh.org/rose/spaceshow/journey/>) attract tens of thousands visitors



- > Many Member and Family programs offered throughout the year
- > “Ology” provides online resources for younger students and families
- > “Natural History” magazine continues the Museum’s mission of educating the public

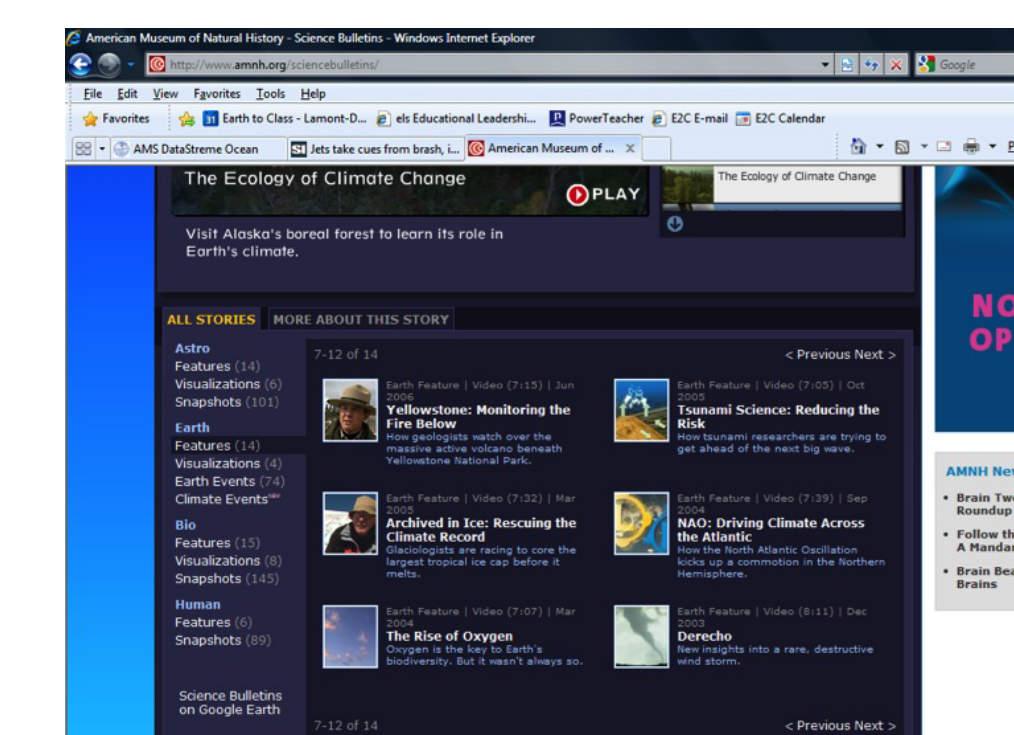
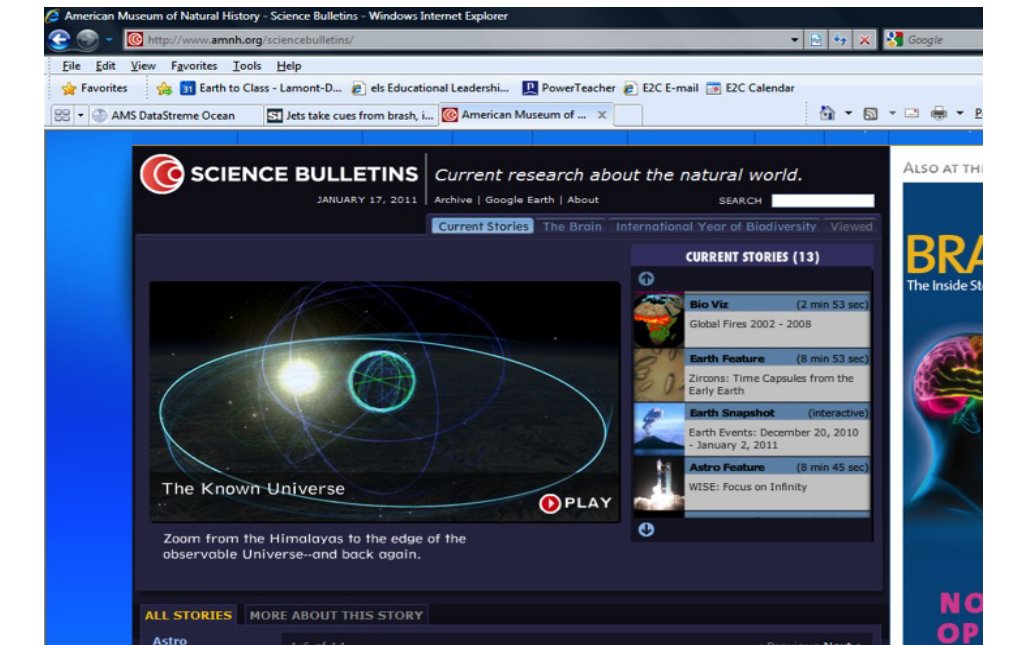


Formative Evaluation

- > Key question for Museum's evaluation department: “How can these programs be used to maximize learning opportunities?”
- > One answer: Utilize museum programs to underscore the importance of knowing more than one language, while enhancing English Language skills to speakers of other languages
- > Examples: “Journey to the Stars” developed into DVDs in seven languages to offer teachers ways to scaffold knowledge of the Sun and stars required for Earth Science achievement.
- > Constantly evaluating reactions of program participants and general public to understand more about how much learning takes place, moving beyond mere anecdotal reactions

“Science Bulletins” (www.amnh.org/sciencebulletins)

- > Highlights from many exhibitions, educator resources, and related video clips are permanently available online
- > Several dozen short (6-10 minute) videos, snapshots, and other resources about “Astro,” “Earth,” “Bio,” and “Human” themes
- > Examples: “The Rise of Oxygen,” “Derecho,” “NAO: Driving Climate Across the Atlantic,” “Acid Rain”



Curriculum Topic Study (CTS) at the Museum

- > Designed to help K-12 educators focus on what adults and students at all grade levels should know about specific scientific content areas
- > Clarifies the intent of standards and core-curricula for which teachers are accountable
- > Makes extensive use of resources of AMNH Education Department, exhibits, and museum scientists



Urban Advantage (www.urbanadvantagenyc.org)

- > Partnerships with other New York City informal science education institutions to offer extensive support for middle schools
- > Focus on helping teachers and students understand the process of science as they develop New York City Dept. of Ed.-required Grade 8 science research “exit projects”
- > Example: student study world-famous diorama paintings to learn about clouds and weather in various environments

