

Volume 1, No. 8

December 28, 2005 - Building a Presence for Science: Ohio eBlast

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1. K-12 Information: “Evolution Named 2005’s Top Scientific Breakthrough”

<http://www.sciencemag.org/>

The journal *Science*, published by the American Association for the Advancement of Science, has named evolution the top scientific breakthrough of 2005. The journal’s editors point to a wide range of new research “uncovering the intricacies of how evolution actually proceeds.” The journal’s proclamation comes just days after a US judge struck down the teaching of intelligent design in science classrooms as an alternative to evolution theory. Intelligent design is “a hypothesis that’s not testable,” said Don Kennedy, the journal’s editor in chief, “and one of the important recognition factors for science and scientific ideas is the notion of testability, that you can go out and do an experiment and learn from it and change your idea. That’s just not possible with a notion that’s as much a belief in spirituality as intelligent design is.” For more resources on evolution, visit NSTA’s web site: <http://www.nsta.org/220/>

[Other breakthroughs cited in *Science*: Top 10 list include research in planetary exploration, the relationship between genetics and abnormal human behavior, evidence of global warming, and the molecular biology of flowers.]

2. K-12: from the ORC - Emerging Science

http://www.ohiorc.org/bookmark/view_a_folder.aspx?mid=23587848&folderID=3204

Part of scientific literacy is understanding that science is a constantly growing body of knowledge and that new knowledge is based on previous knowledge. Yet as educators we necessarily spend the bulk of our instructional time exploring and examining what we currently know and understand about science with little time left for exploring emerging science. Finding time to incorporate emerging science discoveries and issues can be difficult, but it is an important part of helping our students achieve scientific literacy. These ORC resources address emerging science discoveries related to topics you may already be teaching. Consider incorporating these lessons and other resources into related units to give students an opportunity to relate what we already know about science to recent discoveries.

3. K-12: Schoolyard Geology

<http://education.usgs.gov/schoolyard/>

Teach students about geology and mapmaking with earth science activities and information from the U.S. Geological Survey. The USGS also has graphic examples of the life cycle (so to speak) of rocks and other geological phenomena.

4. K-12: Coming soon: The Digital Universe

<http://www.digitaluniverse.net/>

An alternative to Wikipedia, and also started by Larry Sanger, the Digital Universe is an “intuitively organized, multimedia Web that will inform, educate, engage and involve people worldwide. The mission is to realize the Internet’s potential as an open, non-commercial medium that inspires creativity, communication, collaboration and education. A growing global alliance of researchers, scholars and experts are beginning to collaborate on content and use new rich-media tools to convey knowledge in innovative and visually astounding ways.” Wikipedia co-founder Larry Sanger has raised \$10m to hire experts to help edit it. The project has a long list of institutions signed up, including the National Council for Science and the Environment, the American Museum of Natural History, the World Resources Institute, the UN and UCB. Material will be available for free; a Tsunami Case Study is available as an example of what will be available on the site in early January, 2006.

5. K-12: Outdoor Classroom Grant Program from Lowe’s

<http://www.lowes.com/lowes/lkn?action=pg&p>AboutLowe/outdoor/index.html>

Lowe's Charitable and Educational Foundation, International Paper, and National Geographic *Explorer!* classroom magazine have partnered to create an outdoor classroom grant program to provide schools with additional resources to improve their science curriculum by engaging students in hands-on experiences outside the traditional classroom. All K-12 public schools in the United States are welcome to apply. This school year, the program will award grants up to \$2,000 to at least 100 schools. In some cases, grants for up to \$20,000 may be awarded to schools or school districts with major outdoor classroom projects. Some outdoor classrooms will be small gardens for growing flowers and vegetables. Other outdoor learning spaces will include a butterfly garden, a small pond or bog, a nature trail, animal tracking boxes or a bird sanctuary. More elaborate outdoor learning environments include a laboratory for testing water and soil quality, a greenhouse, wetlands, an arboretum, or a shelter.

6. preK-12: Space Foundation Launches Science Lessons

<http://www.sciencestandardslessons.org/>

The Space Foundation has developed a bank of free science lessons for grades preK-12. The lesson plans, which meet national science standards, can be downloaded online. Teachers must register to receive the free lessons.

7. K-12: Einstein Fellows

<http://www.triangle-coalition.org/ein.htm>

The Albert Einstein Distinguished Educator Fellowship Program offers current public or private elementary and secondary mathematics, technology, and science classroom teachers with demonstrated excellence in teaching an opportunity to serve in the national public policy arena. Fellows provide practical insight in establishing and operating education programs. Fellowships

increase understanding, communication, and cooperation between legislative and executive branches and the science, mathematics, and technology education community. Einstein Fellows spend a school year in the Washington, DC, area working in a Capitol Hill office or in a federal agency. This is a paid fellowship, including a monthly stipend of \$5,500 and moving, cost-of-living, and professional-travel allowances. The deadline is January 10, 2006.

8. K-12: Leaders in Learning Awards

<http://www.ciconline.com/leadersinlearningawards/default.html>

Education leaders from around the country who have created and implemented innovative learning programs can apply for Cable's Leaders in Learning Awards, given by Cable in the Classroom (CIC). The application deadline is January 31, 2006

9. K-12: Earthwatch Education Awards

<http://www.earthwatch.org/education/educator/opportunities.html>

The Earthwatch Institute, an international nonprofit that connects adventurous travelers with research scientists worldwide, offers fully funded fellowships for K-12 educators to participate in one of 130 conservation and field research projects around the world. To learn more about the educator fellowships, at the above URL, click on the link in the 4th paragraph. Good luck!

10. K-12: The Freida J. Riley Teacher Award

<http://www.columbusfdn.org/freidajriley/default.asp>

The Christopher Columbus Fellowship Foundation annually presents the Freida J. Riley Teacher Award to an American teacher who works with a physical disability, teaches in an especially challenging educational environment, or has performed a heroic act by making an exceptional, personal or physical sacrifice on behalf of students. In 2002, the Foundation's Board of Trustees increased the award from \$5,000 to \$10,000. The deadline to apply is March 1, 2006.

The award is named after Freida J. Riley a math, chemistry and physics teacher during the early space race era of the 1950s and early 60s at Big Creek High School in Coalwood, West Virginia. While battling Hodgkin's disease, she inspired her students to overcome the limited opportunities of their era and environment to aspire to fulfill their dreams. Miss Riley died at age 31.

11. K-12: Branch out to our colleagues in mathematics: the Math Hero Awards

<http://www.mathmovesu.com/grants.html#hero>

Nominate your favorite math teacher for a \$2,500 award from Raytheon, which will also donate an equal amount to the recipient's school or a math-related nonprofit organization of the recipient's choice. The deadline for applications is February 15, 2006. The application is available by clicking on the *Math Hero Awards* button on the left side of the screen at the URL above.

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