

NEWS

New Kansas Board Reinstates Evolution

In an expected move, the new Kansas State Board of Education voted 7-3 to adopt science education standards that include the teaching of biological evolution. The new standards also require study of cosmology including the big bang theory, and the evolution of the earth and its geology. In August 1999 the previous Board had dropped the teaching of those subjects as speculative. Several members of that Board were subsequently defeated in primary elections (reported in *Physics and Society*, <http://www.aps.org/units/fps/oct00.html>). More information and a link to the new standards can be found at <http://www.aip.org/enews/fyi/2001/016.html>.

Breaking News in Planetary History???

In news emerging at the time this issue of *Physics and Society* is being put together: Geochemists have reported the detection of noble gases-with isotopic composition suggesting a meteoritic, rather than terrestrial, provenance-trapped within fullerenes found at the Permian-Triassic boundary, at several geographically dispersed sites.

(See <http://www.sciencemag.org/cgi/content/summary/291/5508/1469> for a summary and <http://www.sciencemag.org/cgi/content/abstract/291/5508/1530> for abstract).

The P-T extinction, 251 million years ago, was the most extensive mass extinction in earth's history and laid the groundwork for the emergence of the dinosaurs.

Separately, in reports published in the *Proceedings of the National Academy of Sciences* (<http://www.pnas.org/cgi/content/abstract/98/5/2164>

and <http://www.pnas.org/cgi/content/abstract/98/5/2176>),

two teams reported that chains of magnetite crystals, strikingly like those formed by terrestrial magnetotactic bacteria (in composition, structure, and the formation into chains) have been identified in a Martian-origin meteorite, Allen Hills 84001. The researchers strongly suggest a Martian biological origin, approximately 3.9 billion years ago.

Others are considerably more skeptical

(<http://www.sciencemag.org/cgi/content/summary/291/5510/1875a>).

Stay tuned....

New Climate Change Reports: Planetary History in the Making?

The United Nations Intergovernmental Panel on Climate Change (IPCC) released reports which predict significant consequences of global warming-a warming that the reports now principally attribute to human activity. In Shanghai on 20 January, the IPCC Working Group I approved "Climate Change 2001: The Scientific Basis" which ascribes most of the warming of the last 50 years to greenhouse gas concentrations

(see <http://www.sciencemag.org/cgi/content/summary/291/5504/566a>

or <http://sciencenow.sciencemag.org/cgi/content/full/2001/122/1>).

In Geneva on 16 February, the IPCC Working Group II approved "Climate Change 2001: Impacts, Adaptation and Vulnerability" suggesting that the effects could include a wide range of ecological dislocations, and significant economic and health-related challenges to the human population. The global temperature rise by 2100 could be even larger than previously predicted (in part, because of a wider range of future pollution scenarios considered). Both uncertainty regarding future socioeconomic and technology paths, as well as remaining uncertainty in climate models, are noted. Information on these reports is accessible through <http://www.ipcc.ch/>. Recent news reports quote new EPA head Whitman as saying "There's no question but that global warming is a real phenomenon." Subsequently the administration declined to cap CO₂ emissions as a pollutant.

In Other News:

Sequences and analyses of the human genome were published by two teams.... both domestic and international discussions of missile defense broaden, as the Bush administration engages the topic....the new administration begins to review defense strategyUS energy proposals are starting to be put on the table, spotlighted if not spurred by the crises in California....education will clearly be a major topic for both the administration and Congress....University of California President suggests reducing the role of the SAT-I in admissions