SCIENCE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication
Volume 133, No. 1, January 2, 1988

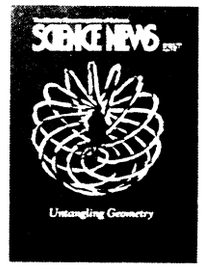
Subscription Department
231 West Center Street, Marion, Ohio 43305

Subscription rate: 1 yr., $34.50; 2 yrs., $58.00. (Foreign postage $6.00 additional per year.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code. For new subscriptions only call (1) 800-247-2160. Printed in U.S.A. Second class postage paid at Washington, D.C., and additional mailing offices. Title registered as trademark U.S. and Canadian Patent Offices. Published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255)
ISSN 0036-8423

This Week

Research Notes

Articles



Cover: This illustration of a torus knot is one example of how computer graphics can be used to illuminate a geometrical concept. The recently established Geometry Supercomputer Project gives a diverse group of leading mathematicians and computer scientists a chance to work together, sharing a supercomputer to explore a number of significant geometrical problems. (Image: Dobkin/Princeton)

Departments

Letters

Teaching creativity

The fact that some people seem to be more explosively creative than others ("The Spark: Personal Testimonies to Creativity," SN: 11/17/87, p.298) may have to do with cultural training. Many people grow up with the idea, assisted by concepts like "gifted," "talented," etc., that creativity is the inborn province of the few. Those presumptions seem to set limits to personal inventiveness.

That creativity is universally accessible is the basic premise of art curricula, an emphasis not stressed in other academic areas. The fact that it so often succeeds may point to the effectiveness of classroom reliance on imagination and on the framing of assignments that prevent conceptual or linguistic barriers that limit the field of conception. Art instruction may already provide the long-term data on teaching creativity sought by Dr. Perkins. As someone said, "Enlightenment strikes the prepared mind." Creativity, in my experience, seems to be a way of processing information and possibilities inherent in our biological selves and not something field-specific.

Allan Peterson
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Radon data 'misleading'

Some reports lately have described the occurrence of radon from "natural" sources in the United States ("Radiation exposure: Safe, eye on radon," SN: 11/28/87, p.347). Some of these sampling points could be misleading.

In the late '50s and early '60s I conducted research on samples from many major U.S. rivers. This included both water samples and plankton samples that received fallout from western bomb testing. Also, samples from the Tennessee, Clinch and Savannah rivers were commonly found to be highly contaminated with both isotopes of uranium and their daughter, radon, which was based on emission of alpha particles but not gamma radiation. Many reports include alpha subatomic particles as radiation. I do not include alphas as radiation, but they are ionizing materials. These ionizing materials were traced to Atomic Energy Commission and Department of Energy operations at the Oak Ridge (Tenn.) National Laboratory and the AEC and DOE Savannah River Project near Aikin, S.C.

Radon gas is a decay product of some isotopes of uranium and radium and is of concern because it emits alphas. Another industrial source of radon gas was building blocks in houses in the Tennessee Valley Authority area that were made from waste products of phosphate fertilizers, known to emit radon gas.

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