



hours of interesting activity in the world of science for the eager child with an inquiring mind. Each month he will receive a different kit on a different topic related to science, mathematics or technology.

THINGS of Science kits contain an explanatory booklet and simple materials for easy-to-do experiments that make science a "fun activity provide an outlet for his natural curiosity in the world about him.

The kits are designed for young people from 10 to 16, but many parents buy them for interested younger children. They are ideal for an afternoon project, scout meetings, neighborhood clubs, and playground activities.

A one-year membership, bringing twelve monthly units, is only \$9.50.

Created and produced by SCIENCE SERVICE 1719 N Street, N.W., Washington, D.C 20036

THINGS of Science 231 W. Center Street, Marion, Ohio 43302 Please enter my membership in THINGS OF SCIENCE (a new, different kit each month for the next 12 months.)

Name	
Address	
City	
State	ZIP

- □ \$9.50 enclosed. (For foreign orders please add \$1.50 for postage and handling.) T03
- □ Bill me.

## science news

Fiftieth Anniversary 1922-1972

A Science Service Publication Vol. 101/March 18, 1972/No. 12 Incorporating Science News Letter

Watson Davis, 1896-1967 Publisher: E. G. Sherburne Jr.

Managing Editor: Kendrick Frazier

**DEPARTMENTS** 

Aerospace: Everly Driscoll

Behavioral Sciences: Robert J. Trotter

Farth Sciences: Louise A. Purrett

Environmental Sciences: Richard H. Gilluly

Medical Sciences: Joan Lynn Arehart Physical Sciences: Dietrick E. Thomsen

Copy Editor: Nadine Clement Production: E. Cherry Doyle

Production Assistant: Esther Gilgoff

Books: Margit Friedrich

Advertising: Scherago Associates, Inc. Circulation Manager: Lawrence L. Cope

Copyright © 1972 by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS is strictly prohibited.

**Subscription Department** 231 West Center Street Marion, Ohio 43302

Subscription rate: 1 yr., \$7.50; 2 yrs., \$13.50; 3 yrs., \$19.50. \$1.00 per year for foreign postage. Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip codes.

Printed in U.S.A. Second class postage paid at Washington, D.C. Established as Science News Letter ® in mimeograph form March 13, 1922. Title registered as trademark U.S. and Canadian Patent Offices.

Published every Saturday by SCIENCE SER-VICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255). Cable: SCIENSERV.

ADVERTISING STAFF Director: EARL J. SCHERAGO

Advertising Sales Manager: RICHARD L. CHARLES

Sales Director: FRED W. DIEFFENBACH

Production Manager: BONNIE F. SEMEL

Address all advertising to Scherago Associates. 11 W. 42nd St., New York, N.Y. 10036.

Sales: New York, N.Y. 10036: Herbert L. Burklund, 11 W. 42 St. (212-PE-6-1858); Scotch Plains, N.J. 07076: C. Richard Callis, 12 Unami Lane (201-889-4873); Medfield, Mass. 02052: Richard M. Ezequelle, 4 Rolling Lane (617-444-1439); Chicago III. 60611: John P. Cahill, Room 2107, 919 N. Michigan Ave. (312-DE-7-4973); Beverly Hills, Calif. 90211: Winn Nance, 111 N. La Cienega Blvd. (213-657-2772).

## OF THE WEEK

181	Toward :	a national	population	policy
TOT	IOWalu	a mationai	population	policy

182 Battle over psychosurgery Coleman Report revisited Congress considers metric system

183 A society for technology assessment Pollution-control costs and benefits

Approval seen on Alaska pipeline Healing bones by electricity Rogers affirms U.S.-Soviet space mission 184

Astronomy: Explaining away superlight motion in 3C 279; Centaurus X-3 is a binary system; PSR 0833-45 emits hard X-rays 185

Earth Sciences: A dying reef at Miami Beach; African rifting comes in three stages; Fluid pressure and earthquake aftershocks

186 Behavioral Sciences: Driving monkeys to despair; A poll on population growth; Sociology of alcoholism

**Environment:** Aerate for deeper sewage lagoons; Computers are too loud; Mercury levels fairly static for 100 years

## IN SCIENCE FIELDS

187 **Astrophysics:** Hypotheses of protostar formation 188 Medicine: Helping the aged remember better

189 **Environment:** Excess decibels can be bad for your health

Letters to the Editor 180 Films of the Week

191 Books of the Week



A new Environmental Protection Agency report says 80 million Americans are afflicted by high noise levels, about 40 million of them at high enough intensities to cause some hearing loss. Jackhammers and other kinds of pneumatic equipment are among the most jarring offenders. They produce noise emissions from about 82 to 97 A-weighted decibels, enough to cause hearing loss with sufficient exposure. See p. 189. (Photo: National Bureau of Standards)

## SCIENCE SERVICE

Institution for the Popularization of Science founded 1921; a non-profit corporation

Board of Trustees—Nominated by the American Association for the Advancement of Science: Wallace R. Brode (Treasurer), American Chemical Society, Washington, D.C.; Bowen C. Dees, The Franklin Institute, Philadelphia, Pa.; Athelstan Spilhaus, Woodrow Wilson International Center for Scholars, Washington, D.C. Nominated by the National Academy of Sciences: Gerald F. Tape, Associated Universities, Washington, D.C.; Allen V. Astin, National Bureau of Standards, Washington, D.C.; Frederick Seitz, Rockefeller University, New York, N.Y. Nominated by the National Research Council: Leonard Carmichael, National Geographic Society, Washington, D.C.; Jacob Rabinow, Control Data Corp., Rockville, Md.; Glenn T. Seaborg (President), University of California, Berkeley, Calif. Nominated by the Journalistic Profession: Gordon B. Fister, Call-Chronicle Newspapers, Allentown, Pa.; Julius Duscha, Washington Journalism Center, Washington, D.C.; O. W. Riegel (Secretary), Washington and Lee University, Lexington, Va. Nominated by the E. W. Scripps Trust: Milton Harris, Washington, D.C.; Edward W. Scripps II (Vice President and Chairman of the Executive Committee), Edward W. Scripps Trust, New York, N.Y.; John Troan, Pittsburgh Press, Pittsburgh, Pa.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless; Staff: Youth Division: Owen Basil; Things of Science: Ruby Yoshioka.