

## GENERAL SCIENCE

# Science for Christmas

Christmas gifts for science-minded young ones, based on information supplied by young scientists, parents and teachers, are collected in a convenient guide by Shirley Moore.

► **THIS CHRISTMAS** you may be giving a favorite child or young person a fascinating interest for the rest of his life or even the beginning of a future career in science. So you may welcome some ideas for Christmas science based on information compiled by **SCIENCE SERVICE** from the experience of particularly promising young scientists and their parents and teachers.

Some of the items on this Christmas shopping list are brand new this year. Others suggest materials you may not have thought of as possible Christmas gifts or have had no idea where to find.

Jigsaw puzzles, tinker toys, construction sets, beginners' chemistry sets and simple microscopes are especially important from two or three years of age until about 12 in developing children's interest and activity in science, the parents of the top winners in the 19th Science Talent Search reported to **SCIENCE SERVICE**.

Enthusiasm for science had been catalyzed before seventh grade for 63% of the finalists at the 11th National Science Fair-International this year, in another Science Service survey of students participating in its activities. There was specific interest in rocks, plants, stars, insects and similar fields beginning as early as the pre-school years for many of these young people.

The selections made for the following shopping guide are based on these studies and other information supplied by young scientists. Suggested items are listed as samples of the wealth of excellent materials available this year.

**NATURE GAMES**, card games using colorful, authentic pictures, common and scientific names. Nautilus (shells), Goldfinch (birds), Monarch (moths and butterflies), Chipmunk (animals), Goldenrod (wildflowers), Juniper (trees), Cinnabar (rocks and minerals). \$1.35 per game, five for \$6, from Nature Games, 8339 W. Dry Creek Rd., Healdsburg, Calif. (6-12 yrs.)

**FLASH CARDS**, for learning and games. Know Your Stars and Planets, Know Your Addition and Subtraction, etc. Rand McNally & Co. \$1 in stores. (6-10 yrs.)

**BEGINNER'S CHEMISTRY SET**, instructions for experiments such as food testing, invisible ink, magic tricks. Gilbert. \$3 in stores. (8-12 yrs.)

**S-SHAPED TEST TUBE RACK**, bent, one-piece, anodized aluminum unit, holds eight test tubes, resists corrosives, may be used in ovens or autoclaves. \$1.80 per holder from Fisher Scientific Co., 414 Fisher Bldg., 717 Forbes St., Pittsburgh 19, Pa. (from 12 yrs.)

**PYREX LAB KIT**, beakers, test tubes, thistle tube, condenser, retort, flasks, etc., Skil Craft Corp. \$10 in stores. (from 12 yrs.)

**CELESTIAL JIGSAW PUZZLE** map of stars. Stars shown in white, constellations and mythological figures in green. \$1.95 from Science Materials Center, 59 Fourth Ave., New York 3, N.Y. (6-12 yrs.)

**SPACE MAP AND MOON MAP**, on reverse sides of large full-color wall poster showing craters, mountains, oceans and valleys of moon; map of planets, drawings of rockets and satellites, space facts. Rand McNally & Co., 29¢ in stores. (All ages.)

**THINGS of science**, experimental kits such as kaleidoscope, flexagons, butterflies, sextant, optical illusion, etc. 75¢ each; year's subscription for monthly units, \$5; a special collection of 15 assorted kits, \$7.97. **SCIENCE SERVICE**, 1719 N St., N.W., Washington 6, D. C. (From 10 yrs.)

**CAMERON HERBARIUM**, 26 bristol board mounting cards with plant outlines, 11" x 8½", punched for binding, nomenclature and classification, marble board portfolio. \$1.44 plus postage from Carolina Biological Supply Co., Elon College, N. C. (From 12 yrs.)

**PLANT PRESS**, softwood frame, 12 absorbent blotter driers, 12 ventilators, woven cotton straps. \$4.50 plus postage for 4 lbs. 12 oz. from Carolina Biological Supply Co., Elon College, N. C. (From 12 yrs.)

**BOOKS**, one of the most permanently valuable gifts for a young scientist. For a guide to the hundreds of excellent, accurate and appealing ones for children, see **THE SCIENCE BOOK LIST FOR CHILDREN** by Hilary J. Deason, \$1 from American Assn. for the Advancement of Science, 1515 Massachusetts Ave., N.W., Washington 5, D. C. Also, there are some not available in stores, such as the **MONTHLY SCIENCE PROGRAM**, booklet in new field of science each month, color photos for mounting, other special material. \$1 a month for as long as desired from Science Program, Dept. 9-NR-0, Garden City, N.Y. (All ages.)

**EDISON AND OTHER EXPERIMENTS YOU CAN DO**, basic material taken from laboratory notebooks of famous scientists. 25¢ from **SCIENCE SERVICE**, 1719 N St., N.W., Washington 6, D. C. (8-15 yrs.)

**PICTORIAL ENCYCLOPEDIA OF SCIENTIFIC KNOWLEDGE**, one-volume coverage of large number of topics in compact text, clear illustrations. Published in England, available here from C. S. Hammond & Co., Maplewood, N. J., for \$8.95. Possibly in stores also. (All ages.)

**PAPERBACK EDITIONS**, a good way to give a basic library inexpensively, issued by nearly all major publishers and university presses, available in book stores, magazine stands, or by mail. To mention only a few examples, **THE ABC OF RELATIVITY**, Bertrand Russell, 50¢ from New American Library of World Literature, Inc.,



**CHRISTMAS SCIENCE SURPRISE**—This Christmas stocking is bulging with gifts especially chosen to delight a young scientist for many years.

501 Madison Ave., New York 22, N. Y. From same source, **UNDER THE SEA WIND**, Rachel Carson, 35¢; **THE NATURE OF THE UNIVERSE**, Fred Hoyle, 50¢. (From 15 yrs.)

**CONCERNING THE NATURE OF THINGS**, Sir William Bragg, \$1.35 from Dover Publications, Inc., 180 Varick St., New York 14, N. Y. From same source, **SOAP BUBBLES**, C. V. Boys, 95¢; **THE RESTLESS UNIVERSE**, Max Born, \$2. (From 15 yrs.)

By mail only, **CHEMICAL ELEMENTS** by Helen Miles Davis, revised by Glenn Seaborg, 55¢ postpaid from **SCIENCE SERVICE**, 1719 N St., N.W., Washington 6, D. C. (From 15 yrs.)

**MAGAZINES**, a most important source of current science news and ideas for personal investigation. Those most often mentioned by 11th National Science Fair-International finalists include **SCIENCE NEWS LETTER**, **SCIENTIFIC AMERICAN**, **POPULAR SCIENCE**, **SCIENCE WORLD**, **NATURAL HISTORY**, **CHEMISTRY**, **POPULAR MECHANICS**, **SCIENCE DIGEST**, **SCIENCE**, **SKY AND TELESCOPE**, **NATIONAL GEOGRAPHIC**, **ELECTRONICS ILLUSTRATED**, **POPULAR ELECTRONICS**, **CHEMICAL AND ENGINEERING NEWS**, **NATURE** and dozens of specialty journals published by scientific societies. (From 12 yrs.)

**BLACK LIGHT MAGIC-GLO KIT**, black light lamp, cord, stand; fluorescent paints, crayon, ink, powder, minerals, dye, braid, etc. Black Light Eastern Corp. \$11.95 in stores. (12-15 yrs.)

**BIO-PLASTIC KIT**, to preserve specimens by embedding in clear plastic, 1 oz. Bio-Plastic, catalyst, mold, sea horse, mold-releasing compound, dropper, instructions, \$1 postpaid. Larger kit, 8 oz. and practice specimens, \$3.95 postpaid from Ward's Natural Science Establishment, Inc., Box 1712, Rochester 3, N. Y. (12-18 yrs.)

**COLLECTION AND PRESERVATION OF INSECTS**, booklet by U. S. Department of Agriculture senior entomologist, P. W. Oman, and chief scientific illustrator, A. D. Cushman; complete information. Misc. Pub. No 601, 20¢, from U. S. Government Printing Office, Washington 25, D. C. (12-18 yrs.)

**FOSSIL COLLECTIONS**, Carboniferous #40,387, Cretaceous #40,386, Assorted #40,385; 10 specimens in each, about 1" in diameter, each sealed in plastic envelope. Include petrified wood, lampshell, dinosaur bone, brachiopods, horn coral, sea urchin, etc. \$1.25 each set from Edmund Scientific Co., Barrington, N. J. (All ages.)

**ILLUSTRATED GUIDE TO FOSSIL COLLECTING**, by R. Casanova, director of Paleontological Research Laboratories, Statesville, N. C.; illus. by drawings, Smithsonian Institution photographs. \$1.50 plus 20¢ handling charge from Naturegraph Co., 8339 W. Dry Creek Rd., Healdsburg, Calif. (From 12 yrs.)

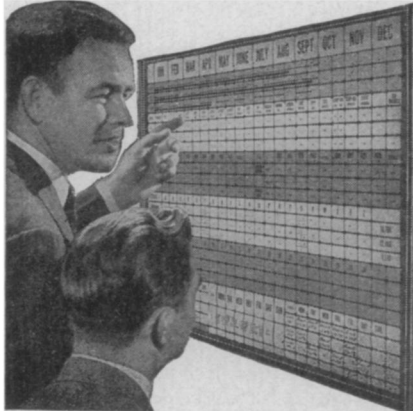
**SPACE SPIDER**, string sculpture in three dimensions using fluorescent colored elastic string through perforated black panels. Cooper Bros. Co., \$2.95 in stores. (All ages.)

**BEGINNER'S MICROSCOPE**, triple turret, 5x, 10x, 20x objectives, 6x and 10x (Continued on p. 318)

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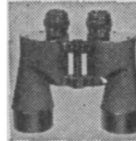
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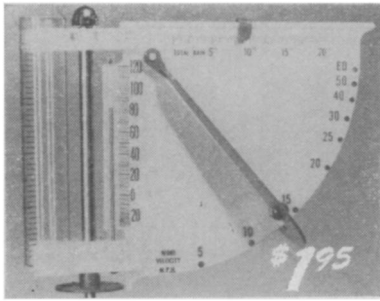
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(Continued from p. 315)

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• Science News Letter, 78:314 November 12, 1960

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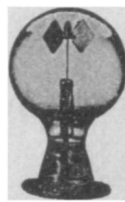
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## Questions

**MEDICINE**—What forms of fungus did scientists use in developing vaccine against valley fever? p. 309.

**ZOOLOGY**—How does the hermit crab "fit" itself into a new home? p. 313.

Photographs: cover, United States Steel Corporation; p. 307, (left) University of Michigan, (right) Fabian Bachrach; p. 309, Westinghouse Electric Corporation; p. 310, Republic Aviation Corporation; p. 311, U. S. Air Force; p. 314, Fremont Davis; p. 320, Eastman Chemical Products, Inc.