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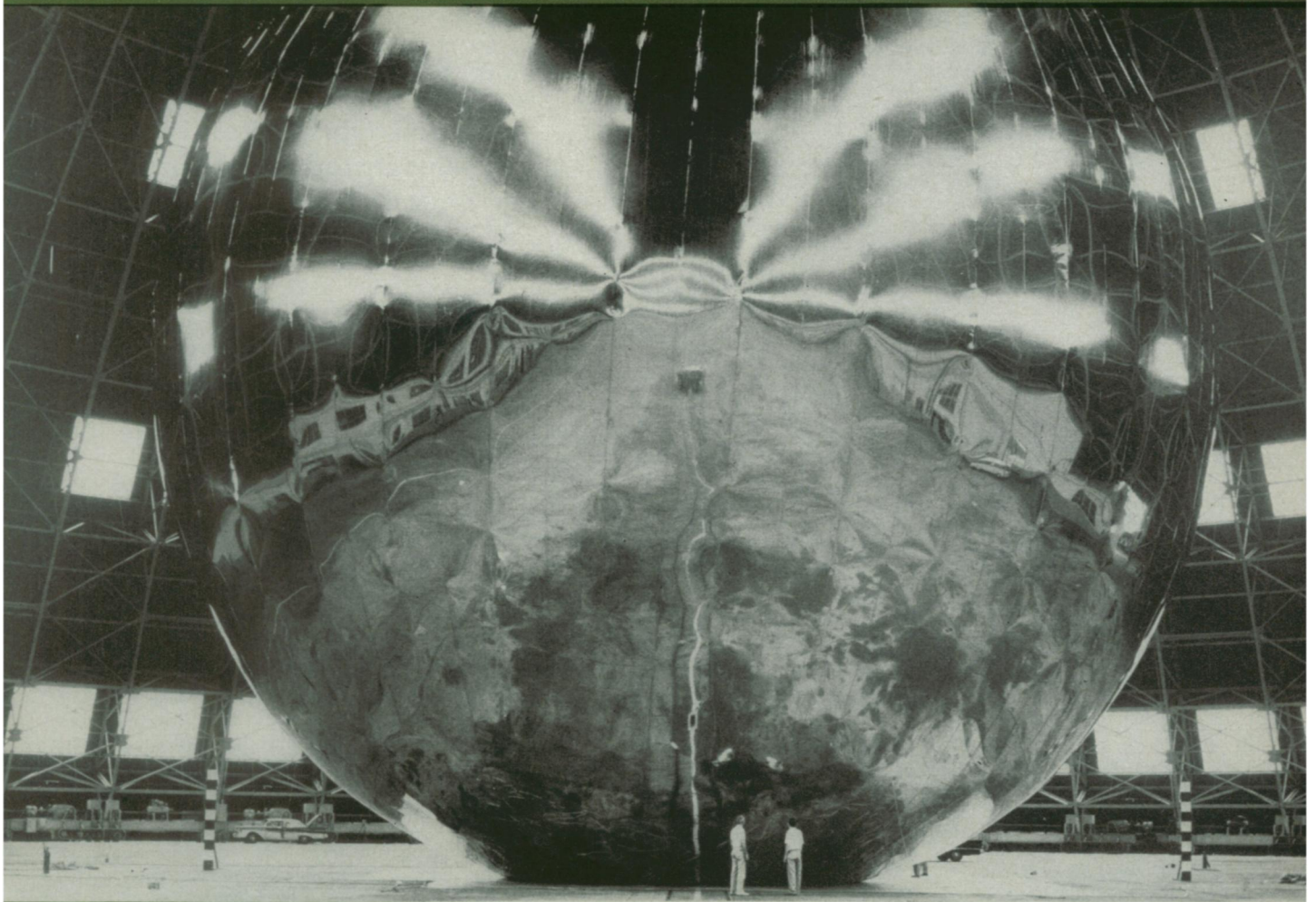
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August 27, 1960

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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE



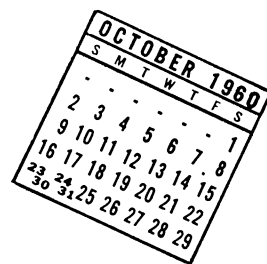
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See Page 130

A SCIENCE SERVICE PUBLICATION

October

SCIENCE YOUTH MONTH



To inspire and inform youths in our schools as to the opportunities, need and qualifications of scientific and technological manpower.

Millions of youths in schools, science clubs, and science fairs throughout the nation provide the nucleus of this National Science Youth Month emphasis on science activities.

✓ CHECK YOUR ACTION PROGRAM . . . NOW

- NOW . . . Organize **local National Science Youth Month Committee**, based on local science fair or academy or technical council group.
- NOW . . . Organize **information material** for use during October. Use it in newspapers, radio, television. Circulate information to schools, teachers, industries, colleges, scientists, engineers.
- NOW . . . Devote an October meeting of your school's **Parent-Teacher's Association** to science youth activities—science clubs, science fairs, hobbies, etc.
- NOW . . . Ask all professional and technical **societies to devote one meeting** during October to science youth power.
- NOW . . . Stock your **career guidance shelf** with up-to-date literature on opportunities in science, mathematics and engineering.
- NOW . . . **Place your subscriptions** to magazines covering the field of science and mathematics, and enter or renew memberships in professional societies.
- NOW . . . Organize **plant tours** for the coming school year so that they will be most convenient for pupils and plant officials.
- SEPT. 15 . . . Teachers should **affiliate** every science group, club, or class in secondary schools with **Science Clubs of America** . . . free handbook, valuable to any teacher. Just write Science Service—"Affiliate my science club."
- OCT. 1 . . . Urge **newspapers and radio-television** stations to emphasize science news and feature science youth power during NATIONAL SCIENCE YOUTH MONTH.
- OCT. 1 . . . **Reorganize for science fairs** to be held next March or April. Reactivate your committees. Make your plans. If you have not had a fair, get one started. Arrange college, industrial, medical society, service club, newspaper and other cooperation.
- OCT. 15 . . . Ask for **Science Talent Search examinations** for your most promising seniors. Examinations will be mailed on November 15.
- DURING OCTOBER . . . Hold **Career sessions** of science clubs. Ask scientists and engineers to discuss careers in science individually or in groups.
- DURING OCTOBER . . . Hold a **Project Night**. Invite scientists and engineers in various fields to a mass meeting of young scientists. Get the professionals and youths working together.
- DURING OCTOBER . . . Schools should hold **special assemblies on NATIONAL SCIENCE YOUTH MONTH**. Speakers should be provided by science fair organizations. Read proclamations and messages from officials.
- NOW AND ALWAYS . . . Publicize all newsworthy events in your school paper, newspaper, radio and television. **Let people know what you are doing.** Notify Science Service, 1719 N Street, N.W., Washington 6, D.C. of your ideas, so that they may be passed on to others.

The organizations listed have joined with Science Service to organize this national emphasis on science youth power. The National Science Youth Program of Science Service, of which OCTOBER NATIONAL SCIENCE YOUTH MONTH is a part, is partially supported under a grant from the National Science Foundation.

VOTE THIS FALL FOR SCIENCE! TODAY'S YOUTHS ARE TOMORROW'S SCIENTISTS.

Cooperating in National Science Youth Month:

American Association for the Advancement of Science

The AAAS administers a Traveling High School Science Library Program and a Traveling Elementary School Science Library Program, sponsored by the National Science Foundation, to stimulate interest in and choice of careers in

science and to assist in improving school instruction in the sciences and mathematics. These libraries are on loan in 1960-61 to approximately 1,700 high schools and preparatory schools and 800 elementary schools. Applications for 1961-62 are invited from principals and headmasters. Address Dr. H. J. Deason, AAAS. Annotated catalogs of the traveling libraries are available at 25c each. Also available are an annotated list of paperbound science books (25c); and a comprehensive list of science books rec-

ommended for high school and public libraries; one for elementary school libraries (\$1.00 each) available October. Send orders to AAAS Publications. Under a grant from the Carnegie Corporation of New York, the Science Teaching Improvement Program of AAAS is sponsoring a project on Studies in Teacher Education with the cooperation of Bucknell University, Emory University, Hunter College, Oklahoma State University, San Francisco State College, University of Arizona, University of Delaware, Uni-

Hand these pages to a teacher, student or parent.

versity of Hawaii, and University of Tennessee. Another Study on the Use of Special Teachers of Science and Mathematics in Grades 5 and 6 will be continued in Cedar Rapids, Iowa; Lansing, Mich.; Washington, D. C.; and Versailles, Ky. Small research grants have been made available to staff members in small colleges. A requirement of the research project is that it involve preservice science teachers. A quarterly newsletter, called *Science Education News*, reports education activities of scientific societies. Junior Academies of Science are encouraged through AAAS-affiliated State and City Academies of Science. A Junior Scientists' Assembly is sponsored each year at the annual meeting by the Academy Conference. Grants are given for student projects through the Senior Academies. AAAS, 1515 Massachusetts Ave., N. W., Washington 5, D. C.

American Cancer Society

The ACS is carrying out an active career-incentive program. A number of ACS Divisions have provided special training grants for careers in medical technology, and have granted other types of scholarships relating to career training in some instances. Materials and information on cancer may be obtained without charge upon request to the local ACS unit listed in telephone directory.

American Chemical Society

ACS members volunteer to give personal assistance to high school science teachers. The ACS will again cosponsor "Continental Classroom" in modern chemistry, which will start in September. This nationally televised course is aimed specifically at the high school teacher of chemistry. Special assistance in connection with this course and other projects can be obtained through ACS members in more than 155 local sections throughout the country. ACS presents awards at the National Science Fair-International and many local sections sponsor award programs. For further information about careers in chemistry, summer employment, speakers, consultants, etc., consult local section officers. Their names and addresses can be obtained from American Chemical Society, 1155 16th St., N.W., Washington 6, D. C.

American Dental Association

All state and local dental societies are being urged to participate in science fair activities. Dental societies and dental schools are prepared to offer advice and material assistance to science teachers and students. The ADA presents awards for outstanding exhibits at the National Science Fair-International. A booklet, *Dental Projects for High School Science Students*, is available without charge from many local dental societies; single copies from Science Service (25c handling charge; 20c each for 10 or more). Dental health and hygiene information described in the Catalog of the ADA (single copy on request) provides some additional background material for science projects. For information and names of local dental society officers, write to Dr. Sholom Pearlman, American Dental Association, 222 E. Superior St., Chicago 11, Ill.

American Federation of Labor and Congress of Industrial Organizations

The AFL-CIO supports better schools and encourages scientific education. Many of its affiliated unions conduct apprenticeship schools to transmit skills to young apprentices and the latest scientific processes to journeymen members. Central labor organizations and local unions of skilled workmen in almost every community stand ready to help pupils with their science projects, clubs and fairs. Students

wanting assistance are invited to contact the local union bodies in their home towns or to write the AFL-CIO Public Relations Department at 815 16th St., N.W., Washington 6, D. C.

American Heart Association

The AHA is encouraging its affiliates and chapters to cooperate with local, regional and state science fairs and will honor a finalist at the National Science Fair-International. For educational materials relating to heart and blood circulation, fair directors should contact their local Heart Associations.

The American Institute of Biological Sciences

The AIBS has several educational activities of interest to teachers. The Institute is especially proud of its Biological Sciences Curriculum Study. This Study is being directed at the secondary level but will eventually include the elementary and college level. The Visiting Biologist Program for High Schools is sponsored by the National Science Foundation and administered by AIBS. Under this program, prominent biologists visit schools from one to three days and talk to students, teachers and other interested groups. Another project, the Secondary Biological Sciences Film Series, is directed primarily at the tenth grade level. The Series will consist of 120 lecture-demonstration films of 30 minutes' duration, each closely correlated with teachers' manuals and study guides. Films are to be available singly, in combination, or as a set. Selected winners of the National Science Fair-International are guests at the AIBS Annual Meeting at which their exhibits are displayed. Write: Educational Activities, The American Institute of Biological Sciences, 2000 P St., N.W., Washington 6, D.C.

American Medical Association

County and state medical societies cooperate with local science fairs by joining in sponsoring committees, giving special awards and scholarships, arranging counseling, etc. The AMA presents citations at the annual National Science Fair-International and selected winners are guests at the AMA annual meeting. A 20-min., color, sound motion picture—I Am a Doctor; a large-scale exhibit on Medicine as a Career; and descriptive literature on the study of medicine are available from the AMA via local medical societies. For information write to Leo E. Brown, American Medical Association, 535 N. Dearborn St., Chicago 10, Ill.

American Pharmaceutical Association

Through the efforts of the National Advisory Commission on Careers in Pharmacy, which is comprised of representatives of every national organization in the profession, practicing pharmacists are being urged to assist students and their science teachers in the development of science projects. The Commission is coordinated by the APhA, which presents two awards at the National Science Fair-International. A career brochure, *See Your Future in Pharmacy*, two color sound films (one for junior high school age and one for senior high and adults), about the profession of pharmacy and a 20-foot Career Exhibit are available from the APhA. Address: Mr. George B. Griffenhagen, American Pharmaceutical Association, 2215 Constitution Ave., N.W., Washington 7, D. C.

American Veterinary Medical Association

Veterinary associations are being encouraged to assist students toward the development of proper scientific attitudes and techniques. Aid to science fair personnel through these associations and their Women's Auxiliaries is being developed. A booklet, *Veterinary Medicine as*

a Career, single copies free, additional copies 10c each. Sponsors may obtain a list of veterinary medical organizations to contact for direct assistance. The AVMA presents awards at the National Science Fair-International; top award winner is guest at the AVMA annual meeting. Address: Brian M. Forster, Director, Public Information, 600 S. Michigan Ave., Chicago 5, Ill.

B'nai B'rith Women

B'nai B'rith Women participates with and contributes to three major youth services: B'nai B'rith Youth Organization, Hillel Foundations and Vocational Service. In these services, direction of young people is carried on by trained personnel. Supervised leisure activities enable youth to explore and express interests and learn skills, while developing healthy patterns of human relationships and fulfillment of responsibilities. Career clinics are conducted to provide guidance in the selection of suitable careers. Write: B'nai B'rith Women, 1640 Rhode Island Ave., N.W., Washington 6, D. C.

Chamber of Commerce of the United States

Over 2000 Chambers of Commerce have Committees on Education which have been alerted to the nation's manpower problems and to the need for better career planning by young people. Many chambers have cooperated with school officials in planning and conducting "Business-Education Days" in which teachers and counselors visit local businesses to learn future career needs; "Education-Business Days" when businessmen visit schools to learn how the teacher can be aided; "Career Conferences for Teen-Agers" in which students have the opportunity to learn the trends in local manpower needs and the types of training required. Business and professional men in every community are ready to work with teachers and administrators to improve guidance programs, to develop science fairs or to secure materials, equipment or work experience to make science teaching more effective. For further information consult your local Chamber of Commerce or write to the U. S. Chamber of Commerce at 1615 H St., N. W., Washington 6, D. C.

Department of Defense

The Department of Defense cooperates with individuals and groups in providing guidance and assistance on projects which are designed to stimulate interest in scientific pursuits. This includes speakers' programs, films, furnishing of instructional and informational materials, demonstrations, exhibits and displays of military products, installation tours and briefings, and assistance in certain forms of scientific experimentation. Address: Commanding Officers of local military installations.

Thomas Alva Edison Foundation

The Edison Foundation directs programs to encourage boys and girls to undertake careers in science and engineering. The Foundation conducts a public information program for improving the quality and quantity of science education. Science Youth Day, held annually on Thomas Alva Edison's birthday, February 11, is a nation-wide program to interest young people in science and engineering. Participating in this International Edison Birthday Celebration are major companies of American industry, governmental agencies, professional, scientific and educational societies, and other groups in the United States and abroad. Science experiment booklets and other free materials are distributed to students. Student visits to industrial plants and research and development laboratories are arranged. The Foundation organizes national

conferences and Edison Institutes on scientific manpower and science education. Awards are given in the mass media to encourage better program material in sciences. A list of publications is available by writing to Thomas Alva Edison Foundation, Inc., 8 W. 40th St., New York 18, N. Y.

Engineering and Science Organizations

Each field of engineering has its own professional society and some of these, including the so-called founder societies, are represented by the Engineers Joint Council, 29 W. 39th St., New York, N. Y. Problems of education, personnel, training and utilization are the concern of the Engineering Manpower Commission at the same address, while Scientific Manpower Commission, 1507 M St., N.W., Washington 5, D. C., performs the same function for scientific organizations. Teachers and others may make inquiries on special problems in connection with science, technology and careers. The Scientific Manpower Commission may be consulted on Selective Service and other military problems.

Junior Engineering Technical Society

Program designed to stimulate and encourage interest in engineering, applied science and mathematics among high school students. JETS chapters are sponsored in high schools by local industry and/or professional groups throughout the United States and two foreign countries. JETS provides free materials for initiating and operating the chapters. The program includes a National Project Exposition with awards and scholarships. JETS offers the students an opportunity to explore the various technical fields and to compare attitudes, interests and abilities with the requirements of technical professions through actual experiences and contacts. Write JETS, P.O. 589, East Lansing, Mich.

Manufacturing Chemists' Association, Inc.

MCA, representing the chemical manufacturing industry, executes an aid-to-education program that embraces all levels from kindergarten to college. For information, request free copy: *An Industry Helps Our Schools*. Newest free publications: *Guide to Aid-to-Education Materials Available from the Chemical Industry; Counselor's Handbook*. Holt, Rinehart and Winston, 383 Madison Ave., New York 17, N. Y., is now sole distributor of *Scientific Experiments in Chemistry* (for senior highs), of *Superstition to Superionics* (for junior highs), and *Matter, Energy and Change* (for elementary school supervisors and teachers). For information of MCA's chemistry films ("Combustion"; "Chlorine—A Representative Halogen"; "Oxidation-Reduction" and "Chemistry of Water") write Sutherland Educational Films, Inc., 201 N. Occidental Blvd., Los Angeles 26, Calif. Free publications: *Frontiersman of the Future*, a careers handbook; *Your Food and Chemical Research; Source of Information on Careers in the Scientific Fields; Film Guide on Chemicals, Chemistry and the Chemical Industry. Chemical Industry Facts Book*, single copies with *Teacher's Guide*, 45c to educators. Address: Manufacturing Chemists' Association, 1825 Connecticut Ave., N.W., Washington 9, D.C.

National Academy of Sciences-National Research Council

Through its Advisory Board on Education the NAS-NRC works with scientists and scholarly organizations for improvement of science education at all levels. Principal attention is given to programs designed to improve the preparation of teachers, at graduate and undergraduate levels, and to expansion of opportunities for continual professional development. Action is being taken to promote better planning for production and use of films and television in

science education. In cooperation with local and national industries and associations, community action is promoted to develop better local understanding and support of schools. Address: Advisory Board on Education, National Academy of Sciences-National Research Council, 2101 Constitution Ave., N.W., Washington 25, D. C.

National Association of Manufacturers

By encouraging study of science and mathematics in schools, cooperation with local and regional science fairs and the National Science Fair-International, the NAM Committee on Research and Education Department is promoting development of science talent. Career booklets, *Your Career in Industry as a Scientist and Engineer*, and *Your Opportunities in Industry as a Technician*, have been distributed in large numbers. Copies free on request as long as current supply lasts. Address: Education Department, National Association of Manufacturers, 2 E. 48th St., New York 17, N. Y.

National Aviation Education Council

To help secondary school teachers stimulate interest in science or mathematics as they relate to aviation, NAEC publishes *Science Teaching Aids for a Stronger America* (75c) and *Mathematics Teaching Aids for a Stronger America* (75c). These books offer suggestions for using aviation facts and principles in science and mathematics classrooms; also bibliographical references. *Guidance Aids for a Stronger America* (75c) is a handbook for guidance counselors. *The Arithmetic of Flying* (50c) includes more than 250 arithmetic problems like those pilots of light aircraft solve in order to fly safely. *1960 U. S. Aircraft, Missiles, and Spacecraft* (\$1.00) describes the products of the U. S. aero/space industry today. *The Space Frontier* (25c) gives facts about space and space exploration, and includes a space age glossary. A special *Science-Mathematics Packet* includes 13 books useful in science and mathematics classrooms. The books in the packet list at \$11.00 but are offered at \$8.89 plus postage. This packet includes a bonus of three booklets and a 4-color Astronautic Systems chart, 22" x 46". Established for the purpose of providing aviation and space information to schools, libraries, and individuals, NAEC offers for \$5.00 a year a mailing service through which subscribers receive single copies of all NAEC books published during the membership year, monthly copies of *Aerospace, National Aeronautics and Skylights*, a selection of previously published books, and monthly packets of up-to-date booklets, pamphlets, charts, pictures and instructional materials produced by the aero/space industry. Free teaching aids such as units on rockets and space travel, bibliographies, *Skylights* (an aero/space fact sheet) and a source book (*Pictures, Pamphlets and Packets*) of free and inexpensive teaching aids relating to aviation and space exploration are available to teachers and librarians requesting them on school or library stationery. Address: National Aviation Education Council, 1025 Connecticut Ave., N.W., Washington 6, D. C.

National Committee for Careers in Medical Technology

This Committee is expanding its awards program for projects related to clinical laboratory medicine. Emphasis is on summer jobs in hospital pathology laboratories for outstanding science students attaining honors at Science Fairs. It distributes career guidance information, including pamphlets and films describing the profession of medical technology, and data on aptitudes, training, qualifications and salaries. NCCMT is sponsored by the American Society of Clinical Pathologists, the American Society of Medical Technologists and the College of American Pathologists. Address: National Committee

for Careers in Medical Technology, 1785 Massachusetts Ave., N.W., Washington 6, D. C.

National Merit Scholarships

National Merit Scholarships are four-year college scholarships available to high school seniors. The stipend accompanying each scholarship is based on need and may vary from \$100 to \$1,500 a year. Winners choose their colleges and curricula during the competition. A supplemental grant to the college usually accompanies the scholarship award. Last year 831 Merit Scholarships were awarded, including some 512 Merit Scholarships offered by and named for 114 business organizations. Registration for the Merit Scholarship Program is by high school. The National Merit Scholarship Qualifying Test, the first step in the annual competition, is administered to second-semester juniors and first-semester seniors in the spring of each year. Each principal is sent registration materials in September. Any eligible student may take the examination at the cost of \$1.00. The 1960-61 competitions began with the Qualifying Test in March 1960. Winners will be announced in the Spring of 1961. The test for the 1961-62 competition will be given either Tuesday, March 7, or Saturday, March 11, 1961, to students who will enter college in 1962. Since the inception of the Merit Program in 1955, some \$19.5 million in Merit Scholarships have been awarded to 3,937 students. For information see your principal or write National Merit Scholarship Corporation, 1580 Sherman Ave., Evanston, Ill.

National Science Foundation

This Federal Government agency conducts programs of support and stimulation to science and research, including scientific personnel and education. Most of its operations are through grants that facilitate activities by other organizations. Programs in science education include support of institutes, summer fellowships, and other training programs for high school and college teachers of science and mathematics; research participation and independent study for college undergraduates; limited summer programs for high school students of science and mathematics; traveling science libraries and traveling science demonstration lectures; fellowships for graduate students and advanced scholars in science, mathematics and engineering; and projects for the improvement of course-content materials and the development of new teaching and learning aids in science and mathematics. For information write for *National Science Foundation Programs for Education in the Sciences*, National Science Foundation, Washington 25, D. C.

National Science Teachers Association

A department of NEA, an affiliate of AAAS. Membership, \$6; includes 8 issues of THE SCIENCE TEACHER and the Packet Service. Publications to help students include: *Encouraging Future Scientists: Student Projects*—examples of prize-winning science projects. *If You Want To Do a Science Project*—suggestions to help students plan, carry through, and report science projects. Single copies, 50c; discounts—2 to 9 copies, 10%; 10 or more copies, 20%. Orders for \$1.00 or less must be accompanied by remittance. *Encouraging Future Scientists: Keys to Careers*—bibliography of science career and guidance material. *Careers in Science Teaching*. Single copies free. Order from National Science Teachers Association. Future Scientists of America of NSTA is conducting its 10th annual student awards program in grades 7-12. U. S. Savings Bonds will be awarded regional winners based on reports of individual projects in science. Closing date is March 1, 1961. Student entry materials available from National

Science Teachers Association, 1201 16th St., N.W., Washington 6, D. C.

National Youth Conference on the Atom

Sixty-two electric utility companies are sponsoring attendance of outstanding high school science students and teachers to the Second National Youth Conference on the Atom, October 20-22, 1960, Museum of Science and Industry, Chicago. "The purpose of the Conference is to present to a group of the nation's most able high school science students and teachers an authoritative and inspiring picture of the promise of the peaceful atom in its various applications, and to help advance interest in the study of science in the United States." Outstanding educators and representatives of the Atomic Energy Commission and industry will participate. Delegates will tour Argonne National Laboratory and Dresden Nuclear Power Station. Eleven organizations, including Science Clubs of America, the American Association for the Advancement of Science and the National Science Foundation, are cooperating. Selection of delegates is carried out locally by school officials working with electric utility companies. Students are selected for scientific interest and achievement, on the basis of academic records and standings in local Science Fairs. For information, query your local electric utility, or write to Electric Companies Public Information Program, 2 W. 45th St., New York 36, N. Y.

New England Council

The New England Council has established a Program of Industry Aids to Education, designed to provide a means through which industry, professional societies and schools may work together. The Program is developing this link first in the sciences and math at the secondary and elementary school level on the basis that industry has, through knowledge, experience and resources, the tools to help meet many of the schools' needs. The Program plans to have available listings of industry's resources throughout New England, and source material valuable to teachers. Write: Robert M. Burnett, Industry Aids to Education, New England Council, Statler Building, Boston 16, Mass.

Oak Ridge Institute of Nuclear Studies

ORINS is a non-profit educational corporation of southern universities, operated under contract to the U. S. Atomic Energy Commission. Its programs are designed to further the cause of science and science education from the precollege through the postdoctoral levels. Its activities include a program to train secondary school science teachers to become either "traveling teachers" or specialists in their own systems; the administration of graduate fellowship programs, traveling atomic energy exhibits, student tours of nuclear facilities, and a college student training program; the presentation of courses in the use of radioisotopes, special courses for high school and college teachers, and symposia and conferences; the maintenance of a medical research hospital, a museum of atomic energy, and a technical library; and the provision of lecturers for universities, research opportunities for university scientists, and a mobile radioisotopes laboratory for on-campus college training. No program of the Institute is limited to participation by member universities. Address: Oak Ridge Institute of Nuclear Studies, P.O. Box 117, Oak Ridge, Tenn.

Optical Society of America

OSA has an active career-incentive program. A booklet, *Careers in Optics*, is being prepared to answer students' questions about "What optics is," "What optics does," etc. Some corporations which employ opticians tell what each is doing in the field of optics—space exploration, astronomy, steel industry, vision or fiber optics,

which enables one to see around corners!—and the careers available to young men and women when they graduate from college. OSA has seven sections: Rochester, N. Y.; Boston, Mass.; Detroit, Mich.; Chicago, Ill.; Niagara Frontier; South Western Connecticut; and Southern California, which welcome young scientists to their meetings (write to your local section and ask for a program). OSA Student Memberships are available at \$2 a year. These give students the right to attend OSA meetings and to receive publications of the Society. OSA particularly welcomes teachers and students at a seminar on "The Teaching of Optics" to be held during the Fall Meeting in Boston, Mass., at Somerset Hotel, October 12-14, 1960. OSA will make an award at the National Science Fair-International. Citations and book awards will be offered to regional fairs. For information about careers in optics, summer employment opportunities, speakers and information about OSA local sections, write: Executive Office, Optical Society of America, 1155 16th St., N.W., Washington 6, D. C.

Science Service

Science Service is the non-profit institution for the popularization of science, with trustees nominated by the NAS, NRC, AAAS, E. W. Scripps Estate and the journalistic profession. It operates as a news service to newspapers and magazines, publishes magazines, issues experimental kits, conducts Science Clubs of America, Science Talent Search, and National Science Fair-International. More than 600,000 youths are in some 25,000 Science Clubs of America. Adult sponsors are invited to affiliate groups, clubs, classes, and receive free annual SCA sponsor handbook and other materials. The Science Talent Search is conducted by Science Clubs of America and sponsored by the Westinghouse Educational Foundation. High school seniors may win trips to Washington, share \$34,250 in scholarships and awards, and be recommended for admission and support in college. The 20th Science Talent Search begins in December 1960. Teachers should ask for examinations about Oct. 15. Completed entries must arrive at Science Service not later than midnight, Dec. 27, 1960. *How You Can Search for Science Talent* sent free on request. Young scientists in secondary schools show science projects and exhibits in thousands of science fairs. The best of these compete in regional fairs, which will send their two top finalists to the 12th National Science Fair-International to be held May 10-13, 1961, in Kansas City, Mo. For information, write Science Service. Free material available on various activities and samples of publications sent on request. SCIENCE NEWS LETTER, weekly summary of current science, \$5.50 a year, trial \$3.13 for 41 weeks; CHEMISTRY, eight times a year, \$4 a year; THINGS OF SCIENCE, monthly experimental kits, membership \$5 a year, collection of 8 kits, \$3.75; *Thousands of Science Projects* listing titles of exhibits, 25c a copy, 10 copies for \$1; Science Service Books, each \$2 postpaid: *Science Exhibits, Scientific Instruments You Can Make, Organic Chemistry for the Home Lab, Experimenting with Chemistry, The Chemical Elements*, 55c each postpaid, 10 for \$5.00. Color Slides of the National Science Fair, 6 sets available, \$6 each. Color Slides of the Science Talent Search, 1 set, \$6. Science Service, 1719 N St., N.W., Washington 6, D. C.

Scientific Apparatus Makers Association

SAMA represents some of the nation's principal manufacturers and dealers in the scientific laboratory and equipment industry. It is concerned that educators and students have at their disposal the finest and most up-to-date tools of their profession. Through yearly awards, cooperation with Federal educational agencies and

direct liaison with leading professional societies, the SAMA supplements its member companies' efforts to better prepare our nation's scientists and engineers. Leaflets and reprints of published articles available without charge: *Selected Bibliography on Science Education and Careers, A Guide to Evaluating Your Science Facilities, Your Career with the Instrument and Control Industry by the Recorder-Controller Section, How to Help Your Town's Editor, I Am the Science Teacher, SAMA Motion Picture Film Directory*. Address: Director of Public Information, Scientific Apparatus Makers Association, 20 N. Wacker Dr., Chicago 6, Ill.

Society of American Bacteriologists

Many Local Branches of the SAB have committees which provide speakers on microbiological topics and give aid to biology students and teachers. SAB Committee on Education issues certificates of commendation to students, and their teacher sponsors, who win awards for exhibits in microbiology at district, regional and state science fairs, and certain Local Branches give additional awards of \$25 for first place winners. SAB sponsors awards at the National Science Fair-International. Suggestions for experiments, projects, lists of films, references and other teaching aid material have been published by the Committee as a special issue (June 1960) of *The American Biology Teacher*. Teachers may obtain this publication from the Executive Secretary, SAB. Information relating to the above and a copy of a career brochure may be obtained free. A list of universities offering degree programs in bacteriology and/or microbiology is available at 50c. Address: Raymond W. Sarber, Executive Secretary, Society of American Bacteriologists, 19875 Mack Ave., Detroit 36, Mich. A 15-minute color movie, "A Career in Bacteriology," may be rented or purchased from Audio-Visual Center, Indiana University, Bloomington, Ind., and other sources.

U. S. Air Force

The U. S. Air Force will participate in this year's National Science Fair-International on an enlarged basis. Additional categories of competition within aerospace fields and more awards are being planned. The program calls for continued recognition at the regional levels in addition to the National finals. Details will be forwarded to all fair directors.

U. S. Army and the Association of the U. S. Army

The U. S. Army and the Association of the U. S. Army will expand its awards in the National Science Fair-International. Exhibits judged will be in the specialized areas of missiles, satellites, electronics, calculators, mathematics, high and low temperatures, meteorology, medicine, biochemistry, geodesy, and textiles. The Army Association will honor students at its 1961 national convention in Washington, D. C. Increased support will be provided to local and regional fairs by area commands.

U. S. Navy

The U. S. Navy requests each fair affiliated with the National Science Fair-International to select one male sophomore or junior high school student whose exhibit is considered best in the broad area of Navy-oriented projects. District Commandants and members of Naval Reserve Units are requested to contact Fair Directors and offer to assist the judges in the selection of Navy Science Cruise winners. One student from each fair will be given an opportunity to see science in the Navy on fleet ships at sea. The U. S. Navy will honor students at the 12th National Science Fair-International.

• Science News Letter, 78:136 August 27, 1960