

PHILLIPS PETROLEUM COMPANY

OKLAHOMA ACADEMY OF SCIENCE AWARD OF MERIT FOR SERVICE TO SCIENCE IN OKLAHOMA

The Phillips Petroleum Company, Bartlesville, Oklahoma, was presented this award of merit at the November 1985 technical meeting of the Oklahoma Academy of Science in Shawnee. The award recognizes Phillips for establishing a tradition of active concern for the quality of science education, other education, and science, not only in Oklahoma, but throughout this region of the nation. The following is a partial listing of recent contributions by Phillips Petroleum Company to science and science education in Oklahoma.

Classroom Visits.

Scientists from Phillips Research Center frequently lecture in classrooms of elementary schools and at colleges and universities on a variety of science topics. Lectures to elementary and secondary classes are usually in the Bartlesville vicinity, but those at colleges and universities may be anywhere in or outside of Oklahoma.

The Robotics group of Research and Development last year developed a program on robotics for elementary schools. This program, which featured a "Hero" robot and video slide presentations, was presented in dozens of schools from Tulsa to the Kansas border and beyond. Other researchers addressed classes in chemistry, engineering, geology, physics, microbiology, and other areas of science. Such visits to Oklahoma public schools in the 1984-85 school year numbered approximately 100.

Employees of Research and Development and other areas of Phillips conducted or participated in four city-wide science presentations for Bartlesville's Gifted and Talented Students Program last year. Topics included creativity, robotics, and future careers in science.

Science Teachers Workshop/Science Week.

Since 1981 Phillips has sponsored an annual Green Country Science Teachers Workshop at the Phillips Research Center in Bartlesville. The workshops have been attended by 300 elementary and secondary teachers from eastern Oklahoma. The workshop program provides teachers new ways to make science "come alive" in the classroom.

The workshop and a week of science activities for the general public are sponsored by Phillips and various community organizations, including local chapters of professional science societies.

Bartlesville District Science Fair.

Phillips is a sponsor of the annual Bartlesville District Science Fair and provides funding, staff time, and a place to hold the fair.

Educational Films and Video Tapes.

Phillips has underwritten two series of educational films and video tapes and "associated teaching aids" on science and mathematics. These are made available, free of charge, to schools in Oklahoma and across the nation and to public television. As with the teacher workshops, the objective is to make science and mathematics interesting, to spark the student's interest in these areas, and to show practical applications of science and mathematics.

A. Search for Solutions. This is a nine-part film series about the problem-solving processes used in science and has become the most widely viewed educational film series ever produced. Films have been seen by more than 100 million U.S. secondary school students since they were released in 1979.

Oklahoma schools have been the biggest user of these films. They have been shown in all 776 public and parochial secondary schools in Oklahoma at least once. There have been 9,014 bookings in Oklahoma as of August 1985. Phillips has invested more than 13.5 million dollars in producing and distributing "Search for Solutions" and related printed materials.

In addition to printed materials for use by teachers and students while the films are

being viewed, a Phillips educational consultant twice a year produces "Teaching Notes," a newsletter for science teachers on science education and use of films.

B. Challenge of the Unknown. This series of seven twenty-minute video tapes was made available in October 1985. Phillips underwrote production of the series through a 6.7 million dollar grant to the American Association for the Advancement of Science. The Company will also pay for distribution of the tapes.

C. Other Materials. Phillips also provides a variety of other materials for classroom use on request. These range from general corporate literature in such areas as research, careers, and environmental protection to booklets on petrochemical products we use daily and glossaries of technical terms. A series of fifteen booklets on energy-related topics has been printed especially for use in elementary classrooms. Phillips has also produced "stupid balls" -- small, red plastic balls that, instead of bouncing, adhere to and roll slowly down a glass window or smooth wall-for use in teaching about polymers and in demonstrating that what seems obvious may not be correct.

In addition to Phillips materials, the Company supplies on request educational materials prepared by other organizations (American Petroleum Institute, Natural Gas Supply Association, Industrial Biotechnology Association, and some professional societies).

D. "Search for Solutions" Contest. This year Phillips sponsored the first "Search for Solutions" contest; the announcement of the winners was held in the U.S. Commerce Department's Science Week. Students selected one of several specified fields of science and addressed the significant problems related to that area. They applied scientific methods taught in the "Search for Solutions" to arrive at a possible solution. Cash prizes were awarded to regional and national winners in junior and senior high school classifications.

Tours.

Tours of the Phillips Research Center are available to students over 16 years of age. During the school year, tours by student groups average about one per week.

Technical Symposia.

Occasionally, Phillips sponsors a technical symposium on areas of research under way at the Research Center. When appropriate, faculty members from state universities are invited to attend or participate, as was the case with the Phillips Polymers and Catalysis Symposium in 1985.

Contributions, Scholarships, Fellowships, and Research Grants.

More than 36% of the 10.5 million dollars Phillips and Phillips Petroleum Foundation Inc. contributed in 1984 went to higher education for science and other educational programs. Oklahoma schools, colleges, and universities are a major beneficiary of these contributions. Major grants were made in 1984 related to science and technology including \$100,000 to Oklahoma State University for its 21st Century Center for Agriculture and Natural Resources and \$100,000 to The University of Oklahoma Energy Center. Grants have gone to support other university programs: fellowships and research, the Council of Partners, a minority engineering program, and funds to stimulate faculty development in engineering, the physical sciences, geological sciences, mathematics, statistics, and business administration. Such grants were made to Tulsa University, Central State University, Northeastern State University, Northeastern Oklahoma A&M College, Oklahoma Baptist University, Oklahoma State University, and The University of Oklahoma.

Other grants in the Bartlesville area included \$50,000 to the Bartlesville Area Education Foundation, \$210,000 to Bartlesville Wesleyan College, and \$20,000 toward the development program of Tri-County Tech in Bartlesville.

To encourage individual employees to contribute to education, the Phillips Petroleum Foundation, Inc., offers a matching gift program; the Foundation matches employee contributions up to \$5,000 per employee per year to eligible education institutions. In 1984 Phillips provided such matching grants totaling \$522,676 to 21 Oklahoma colleges and universities. Some \$8,000 in W.W. Keeler scholarships for minority group members went to students at eight Oklahoma institutions.

Each year Phillips awards scholarships to

66 children of company employees, many of whom attend colleges and universities in Oklahoma. These scholarships are for \$1,000 a year annually for up to four years. In 1984 these scholarships totaled \$274,000.

Donations of Equipment and Materials.

Surplus equipment and materials are offered to institutions of higher education in geographic areas where the equipment or materials are located. These included office equipment, photographic supplies, and laboratory instruments and equipment. Such contributions in 1984 were valued at \$5 million.

Innovations.

Phillips Petroleum Company has joined other companies through the Committee of Economic Development and the U.S. Chamber of Commerce, and other industry associations, in emphasizing that preparation for productive work is a key element of quality public education. It seeks to continue its strong tradition of providing innovative mechanisms through which business can contribute to school improvement.