Corporate Involvement Fuels Science Education Projects

During the past few years much national attention has been focused on the quality of science and mathematics in our nation’s schools. Commissions and committees have pointed to these subjects as being especially critical and have asked for cooperation to strengthen the schools’ abilities to meet heightened expectations in these areas.

One form this cooperation is taking is the increased participation by the business community in school science programs. Some examples of this commitment include “adopting” schools, direct financial support for “magnet” schools, lending technical staff to schools as teachers, and providing computers and other equipment.

The scientific community as well—through the professional science and engineering societies—has shouldered its responsibility to contribute to the enhancement of school science and mathematics education. With the support of several major foundations and corporations, projects organized by the professional societies have capitalized on the unique resources the scientific community has to share with the schools.

The AAAS is involved in several such projects:

- The National Forum for School Science is a new program, funded by Carnegie Corporation of New York, designed to focus attention on critical aspects of science education. Each year the Forum will have a particular theme which reflects one of the major issues in school science.

- The Forum will consist of three major parts—commissioned position papers that will analyze what is known and propose alternatives for the future; a National Forum in which the entire spectrum of concerned parties—science teachers, administrators, scientists and engineers, textbook publishers, parents and students, legislators, and union leaders—get together to assess current practices and suggest other directions; and a

publication, This Year in School Science, that will report on the National Forum, assess progress, and pose new questions.

The first Forum will look at “Science Teaching Now and in the 21st Century.” It will address such questions as how much, and what, teachers need to know to be able to teach, and what needs to be done to ensure an adequate number of qualified science teachers for the future.

The 1985 National Forum will be in Washington, D.C., 10 and 11 October. In 1986 the National Forum for School Science will focus on “Goals and Objectives,” and in 1987 on “Students and Learning.”

The Forum is seeking the guidance and involvement of scientists. If you have questions, comments, or ideas, write Audrey Champagne, Office of Science and Technology Education, at the AAAS address.

- “Challenge of the Unknown,” funded by the Phillips Petroleum Company at more than $6 million, is an effort to help schools do a better job of teaching quantitive problem-solving and of keeping young people interested in mathematics. The project, which is nearing completion, will provide an array of materials, including a series of seven films, free of charge, to every teacher in the middle grades who wishes to use them.

The materials will excite students’ interest by challenging them to grasp mathematical concepts as they solve different kinds of problems. Among the films’ many examples of activities with a mathematical application are avalanche management, speed skating, building a log canoe, traffic patterns, making a boomerang, taking the census in China, and figuring out how fast dinosaurs walked by looking at their tracks.

The AAAS Office of Science and Technology Education is now working with mathematics educators to develop film guides and supplementary materials for mathematics teachers. These print materials will help teachers integrate the films into the mathematics curriculum. Plans also are under way to present summer seminars for teachers to introduce them to the films and to explore ways in which they can be used to enhance mathematics instruction in the middle-grade classroom.

- “Science Resources for Schools (SRS)” is a long-range project aimed at linking junior high schools with the scientific community. The Standard Oil Company (Ohio) is providing nearly $2 million to fund a large-scale 3-year pilot test of the project. Now in the final year of the pilot project, the SRS project is being tested in some 9000 middle schools across the country.

SRS packages are delivered to participating schools five times during the school year and contain an assortment of materials including illustrated booklets for the teachers, activity sheets that involve students in science projects, posters, career materials, reprints of articles from a broad range of disciplines, briefings and commentary on important science education issues for principals, and an annual policy review of science in the middle grades for superintendents and school boards.

The connection between schools and the scientific and engineering community is made through these materials which are being put together by science museums and research centers, as well as by the scientific and engineering societies and academies of science with which AAAS is affiliated.

Plans for expanding the SRS program to more states are currently under way and the hope is that, eventually, SRS will become a national and self-supporting program to enrich the classroom science experience for all students.

By funding projects like the “Challenge of the Unknown,” “Science Resources for Schools,” and “The National Forum for School Science,” corporations and foundations are helping scientific and engineering societies to make significant and continuing contributions to the quality of science and mathematics education. These new partnerships between the business community and professional societies are increasing opportunities for scientists themselves to get involved in classroom science and mathematics.

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