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Open Letter to Science Teachers: Society in the Science Classroom

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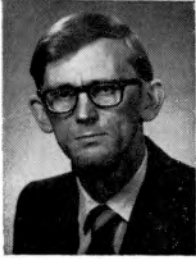
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Open Letter to Science Teachers

Society in the Science Classroom

In a speech given to a group of scientists and science educators last spring, Paul deHart Hurd repeated a remark made earlier by Bentley Glass that “a serious mistake has been made in the development of our national curricula in not stressing the social implications of science”. Indeed this is true. You will search in vain for a reference to atomic weapons in the index of the Chem Study text. You will find no listing for hydrogen fusion weapons in the index of the PSSC text. DDT goes unlisted in the CBA index. You will find no reference to the effect of phosphates on algae growths in the BSCS texts.



Hoff

We all recognize that an acquisition of a sound foundation knowledge of scientific principles is imperative for the beginning scientist and that the basic purpose of the curriculum reform was to provide fledgling scientists with such a base. We further recognize that an understanding of scientific fundamentals is a prerequisite for understanding the social implications of science. The “Ten Rules of Smokey the Bear” are just so much preaching unless we understand the meaning of a “closed system”. But those of us involved in the general education of students must not forget that:

- (a) science for science sake is generally appealing *only* to scientists and
- (b) the majority of our students in elementary and secondary science classes will meet science in their later life *only in a social setting*.

I believe, therefore, that science in our classrooms must be taught in social terms and that an attempt must be made to teach science *and* its social implications.

Our present concern over environment, pollution and population growth is an instance of the meeting of science and society. The tremendous forces of science and technology that have shaped our lives must be confronted head-on in the classroom. The students may not demand it, but they will favorably respond to it.

But how many of us are prepared to teach this marriage of science and society? Formal college science preparation did little in this area for most of us. This means *each* teacher must now become (as he always should have been) an independent self learner. How many of us have read any of the current flood of books concerned with these problems? Have you read *Population, Resources and Environment* by Ehrlich and Ehrlich (or even the brief book, *The Population Bomb*)? Have you read *The Environmental Crisis, Moment in the Sun, The Frail Ocean, The Plundered Planet*? Does your school

have a subscription to *Environment*, and if so do you read it? Have you thoughtfully read any scientific publications concerning these issues? Are you aware that all of these problems are multi-faceted and that a "scientific solution" in the classic sense of the word will not be possible. Have you read *Come, Let Us Play God*? This book, more than any other that I have read, focuses on the multi-faceted aspects of problems and solutions that are science related.

The success of the classroom teacher in meeting the needs for integrating science into the society and bringing society into his science classrooms will largely be determined by how active the classroom teacher is in educating *himself* on a day-to-day basis.

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Careers in Science and Technology

Readers will find information about more than 30 career fields of interest to students in a 48-page bibliography of career guidance literature just released by the National Science Teachers Association. The NSTA has compiled this 1970 edition of *Keys to Careers in Science and Technology* to inform students, guidance counselors, teachers, and parents about current publications that are useful and reasonably inexpensive.

In reporting on career guidance materials, *Keys to Careers* gives the name of the author or issuing agency, a brief statement as to the contents of the publication, and other data, such as price and date, as available. In addition, the reader will find here information on: scholarships, summer

programs for students, award programs for students, special programs for students, the field trip as a source of career information and stimulation, and agencies which can help in career guidance. The importance of the teacher's role in guidance is indicated by the numerous awards, scholarships, fellowships, and other programs which this bibliography also lists as available to teachers.

Keys to Careers in Science and Technology may be ordered from NEA Publication Sales, 1201 16th Street, N.W., Washington, D.C. 20036. The price is \$1, with a discount of 10 per cent on orders of 2 to 9 copies, 20 per cent on orders of 10 or more. Payment must accompany all orders except those on official purchase order forms. Postage and handling charges will be added to billed orders.