

# POSTERS AND PEDAGOGY

John M. Fowler, Director of Special Projects, National Science Teachers Association

The use of posters in classrooms—posters that are bound into educational journals for distribution—is a common enough practice, so that when the Advanced Power Systems Divisions people at Westinghouse approached us at NSTA about developing some energy posters, it seemed like a good idea. We were intrigued with the idea of putting an energy theme before teachers. But we were even more intrigued by the idea of collaborating with a high quality design team to produce posters with artistic as well as pedagogical and scientific merit. The opportunity to place the same posters in *The Science Teacher* and *Social Education* was also attractive. This would emphasize our conviction that energy is an interdisciplinary topic, ideally handled in a cooperative way by teachers from several disciplines.

The poster "Energy Search" in this issue will be followed by "Solar Promise" in the April 1982 issue and "Nuclear Promise" in the May 1982 issue. The theme of the series is the need to process instead of prospect for energy. Solar and nuclear energy, in particular, are sources that have limited usefulness in their natural state and need to undergo extensive and expensive processing. As our society makes the ongoing transition between energy eras, we will find ourselves dealing more and more with energy as a manufactured commodity, rather than a raw material. It seems important to us that teachers and students become aware of this change. Since the Advanced Power Systems Divisions of Westinghouse are in the business of energy processing systems, the theme is also attractive to them.

And then we started to work on the poster design. When we met in New York with Peter Bradford and Ralph Caplan—a creative and experienced design team—their first question was: "Which side of the poster will be displayed?" The second question followed naturally: "If the poster is pinned to a bulletin board, why put anything on the back?"

It was a bad start for our collaboration. We never really answered either of those questions, and they hung over us for the rest of the project.

We took a practical approach. The first poster was to carry the visual image of change and search. The world is looking for new energy sources, but it needs processed energy. Posters 2 and 3 symbolize two of the sources that the world can plug into. But the visual message—although we hope it is compelling and provocative—is not enough. Teachers need some background information. More importantly, the poster message needs to be backed up by student involvement—the students need to *do* something if they are to be moved by the topic. There is space on the back of the poster, and it seemed for reasons of both pedagogy and economy that this was the place to put the text and activity suggestions. So we put them there.

The back of the poster is, as you notice, broken up into panels that can be duplicated on a copying machine. We suggest that you produce sets of the student activities that way. However, we also tried to make the back attractive enough that you could make it the "poster" if you wanted to.

How do teachers use posters that are printed front and back? Do you use them? Can they be encased in plastic and presented horizontally on top of a table instead of vertically? Do you bother to copy the materials off the back? We would certainly appreciate some letters from you helping us to solve this mystery. Of course, we would appreciate any communication about the posters. Were they useful? How could we improve them, etc.?

I must take the responsibility for the content. Energy is a sometimes controversial topic; and although I tried to provide objective text and a balanced bibliography on all the posters, the limits of space prevented me from including all the qualifying phrases and sentences I would have liked to. Objectivity is, of course, most difficult to obtain

when describing nuclear energy. That text was reviewed by several people at Westinghouse and by Les Ramsey at the Atomic Industrial Forum (AIF). It was also carefully reviewed by Dr. Thomas Cochran at the Natural Resources Defense Council (NRDC). While these reviews were extremely important, I want to stress that the posters do not represent the official position or opinion of the NSTA, the NCSS, Westinghouse, NRDC, AIF, or any other group. The final editorial responsibility is mine.

Producing these posters was a long and drawn-out process that benefited from the talents and patience of many people. Juliana Texley and Dan Roselle, the editors of the two journals, lived through several false alarms before the posters actually arrived. My old friends Peter Bradford and Ralph Caplan put a lot of energy and creativity into a project that was frustrating at times. Janet White, Helen Carey, and Julia Fellows of the energy education staff at NSTA contributed importantly to the substance of the posters.

We are also grateful to Alan Huey and Ed Collins of the Westinghouse Advanced Power Systems Divisions for their confidence in us and for the funds which allowed us to make these attractive gifts for you.

March 19, 1982 is National Energy Education Day (NEED), and we hope that this first poster graces many a NEED bulletin board. What we really hope, however, is that these posters remind teachers and students about the great changes that are taking place in the energy picture.

## Editor's Note

The poster inserted in this issue of the journal is presented to stimulate thought and discussion concerning possible ways of meeting vital energy needs. However, the poster does not necessarily represent or reflect the position of the National Council for the Social Studies or of *Social Education*. Indeed, the diversity of membership in NCSS makes it certain that there will be

differences of opinion among those who use this poster, particularly differences in their viewpoints on the benefits and risks of nuclear energy, the long-range effects of waste disposal systems, and other controversial areas. Such a situation is as desirable as it is realistic, for the field of energy education is too serious for us or other educators to seek unanimity of opinion.

Thus, the material on the poster will raise questions. The answers, however, must evolve from the information, values, convictions, and goals of each individual.

Daniel Roselle  
*Social Education*