

An Overture

“How-to-do-it”

This special issue of *American Biology Teacher* came into being by popular demand. In conversations with teachers, in questionnaires, and in general correspondence I receive as your editor, I continuously get requests for more “How-to-do-it” articles. Teachers tell me they need new ideas for activities—activities that require a minimum amount of preparation time and equipment. They also tell me that they rely on the “How-to-do-it” section of *ABT* to provide many of these ideas. Thus, we have collected such articles on a variety of topics and present them to you as a special topic issue of *ABT*.

Previous special topic issues of *American Biology Teacher* have addressed environment (1975), entomology (1976), water biology (1977), careers (1978), and new dimensions in biology education (1979). Through all those years I have perceived a growing interest in “How-to-do-it” articles, so it seemed appropriate that a special topic issue be devoted to such articles.

Over the years I have also given some thought to the reasons why teachers express needs for “How-to-do-it” articles. Probably the foremost reason is related to the economic situation. As enrollments drop and budgets decline, teachers are expected to do more with less. They may have been assigned to teach another science along with biology, though they had in the past taught only biology. Demands on such teachers to provide interesting new activities for their students are ever increasing.

Another reason for the need for “How-to-do-it” articles has to do with teacher “burn out.” After teaching the same courses for several years, we become well versed in the content of the course. We may add a few new things each year for the first few years. Then we tend to run out of ideas. We may even run out of enthusiasm for looking for ideas. A “How-to-do-it” article can provide the incentive to help a teacher overcome “burn out.”

Finally, I think many teachers are constantly looking for new ways to motivate their students. They need some activities that slower and less-motivated students will be interested in doing. They need other activities that will challenge the more able students. We try to encourage authors to include in “How-to-do-it” articles some basic procedures that most students will be able to carry out and some ideas for open-ended investigations for the more able students. Thus, “How-to-do-it” articles help teachers to meet the needs of a variety of students.

In selecting the articles for this special issue, we have tried to keep in mind the reasons that teachers need such articles. We have also tried to offer diversity in the kinds of organisms required for the activity and in the levels of organization studied—from cells to ecosystems. Finally, we have selected some articles that are appropriate for high school classes and others that are appropriate for introductory college classes. We have given highest priority to articles that can be adapted to several instructional levels.

We have made every effort to listen when you told us what you needed. We have received magnificent cooperation from the many authors whose articles are included in this issue. It is with great pleasure that we present this special issue. May you find it as rewarding as we found the production of it.

Joan G. Creager, *editor*
Patricia A. Masters, *assistant editor*
Deborah Bukovskey, *administrative assistant*
Susan V. Nolan, *advertising manager*