to a laboratory experiment involving their topic. This is where the student comes to grips with all of the frustrations of the working scientist. The experiments often lead to science fair projects and in the case of one student to participation on a TV show.

During the fourth quarter the student submits his paper which now includes the library research and the experiments he has done. He is given a date in the middle of the fourth quarter, and all of the lab assistants meet to hear his report. A seminar session is conducted and suggestions for improving the paper are made by his fellow students under the guidance of the biology staff. The student then prepares his final paper and it is placed in the school library.

We are pleased with this approach to biology lab assistants. The student feels that he is learning to work as a scientist, he takes pride in completing a task and other students respect the lab assistant as something more than a lab helper and dish washer.

Letters to the Editor

Dear Editor:

The April issue of ABT contained an illuminating (?) letter to the editor, ostensibly presenting a rational argument for the proper time to teach evolution in the high schools. Bleifeld states that there is a "widespread interest in the teaching of this subject in the high school biology course." I should hope so. If this were not the case, I would seriously question the competence of those who taught otherwise.

The concept of evolution is overwhelmingly *the* concept to be developed, explained, and understood among all the major concepts in biology. As a single, unifying idea it enables one to relate the whole, vast body of biological information into a potentially meaningful system. A teacher may not want to do this relating every day of the course, but what he should want to do is put the student in a frame of mind so that the student has the opportunity to see and to make the connections.

Implantation of the concept of evolution early in any biology student's mind then provides a selective *mechanism* for treating information, a *scaffold* for building cognitive models, a *force* which pushes and pulls data and procedures.

Mr. Bleifeld uses the argument of the open mind, of the objective student for holding back on the idea of evolution until the student has the exposure. Note that the weighing of evidence is in terms of something. The idea of weighing evidence is a relationship of something to something. Give me two pieces of evidence to compare. To compare with each other—nonsense. To compare with an idea or against an idea—of course. Darwin himself consciously looked for all evidence *not* substantiating his theory so he could assess its weaknesses before anyone else did and so that his *argument* could be sound both logically and experientially.

If one is sincerely interested in treating the scientific process (as Mr. Bleifeld assuredly is), one must set the stage in terms of an idea (as a problem, hypothesis, or whatever) to be followed by all degrees of sophistication of the investigatory procedures.

Anton J. Carlson always asked; "Vat is da evidence?" I ask: Evidence *for* what, *against* what?

Incidentally many teachers follow Mr. Bleifeld's suggestions. They leave evolution for the last week in May or even the last week in June. Some are shouting. "Read the chapter on evolution" as students rush through summer vacation doors. This may be quite all right: students thus come to us at the college level with an open and uncluttered mind.

Again incidentally, look at the Chem Study program. You will find that the concept of the atomic theory is introduced almost immediately. It would not be most effective to hold this major concept for the end of the year's course. And it is most ineffective "to consider the teaching of evolution toward the end of the year's course" in biology.

Alfred Novak
Stephens College
Columbia, Missouri