

# Evaluation in High School Biology

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A biology teacher describes his evaluation method in the general course.

This article deals with one of the most important problems in the field of education-evaluation. It is designed to point out that it is possible to evaluate accurately on the basis of measuring devices used and at the same time provide for the attainment of the general objectives of a biology course. As one can see, there is a close relationship between evaluation and course objectives. One might say that course objectives should be one of the bases underlying evaluation.

Too often teachers of biology have very little knowledge pertaining to evaluating students in their classes. This may be particularly true of new biology teachers. This article may be useful to workers in this area of teaching.

In this article, evaluation has reference to analyzing very carefully the results obtained from measurement devices which have been used to ascertain academic progress or growth in general of pupils. This evaluation is the basis for assigning marks or grades for the various grading periods.

As a biology teacher for several years, I have found that evaluation of students is facilitated if the evaluation is based upon the general objectives of the biology course. This is to say that, in my opinion, evaluation is more accurate if it centers around the general objectives of the course or subject.

To illustrate the relationship between general course objectives and evaluation, let us consider some of the general objectives of a high school biology course and also the purpose of the objective(s). Three criteria upon which one could base his evaluation of students and possible reasons for establishing each are as follows:

1. *Written examinations* on a weekly, unit, or six-weeks basis. These examinations

will enable the teacher to ascertain understanding, appreciation, etc., on the part of the student. These should also reveal whether sufficient knowledge has been gained by the students for everyday applications of biological principles and also for future study in the biological field.

2. *Bringing to class biological specimens* on a weekly basis. This should allow the student an opportunity to explore his environment and to apply knowledge gained in the classroom to practical situations. The student will also have an opportunity to study the flora and fauna of his area.
3. *Reading cards* pertaining to the biological sciences handed in on a six-weeks basis. This activity should enable the student through reading to broaden his scope of biology and also to keep abreast of new developments in the field of biology.

To further clarify the evaluation factor, one could use each criterion established for a fractional part of the six-weeks mark. For example, the written examinations could represent one-half or fifty percent toward the six-weeks grade, the specimen credit could represent one-fourth or twenty-five percent, and the reading cards could represent one-fourth or twenty-five percent of the six weeks mark.

The aforementioned information is offered as a possible approach to this important problem of evaluation. I have tried and used it over a period of time and have found it to be practical, useful, and effective in evaluating. Perhaps other factors related to this problem could be explored. This article deals with only one facet of this important problem.