

Using Rubrics¹

Designing meaningful assessments of learning is essential to the development and implementation of effective nonformal environmental education programs. Assessments allow us to gauge whether expected learner outcomes have been achieved. Many educators have found the use of rubrics to be a valuable tool when assessing learner outcomes. Rubrics can be thought of as a logical extension of program and instructional objectives. With a well-written rubric, it is reasonable to expect that all performances will be measured with the same yardstick. Additionally, when rubrics are used, learners know what is to be expected of them.

SAMPLE RUBRIC

Taking water samples

SCORE	SAFETY Degree to which correct safety procedures are followed	PROCEDURES Degree to which proper mechanics in water quality analysis are followed	RESULTS Degree to which proper samples values are obtained	INTERPRETATION Degree to which likely hypotheses are developed
4 Fully meets standards	Handles chemicals and glassware safely.	Obtains uncontaminated samples and follows correct steps for pH analysis.	Both samples within .3 points of the correct pH.	Can list three plausible reasons as to why the pH of the two samples differ and defend reasoning behind hypotheses.
3 Partially meets standards	No serious safety issues during analysis but procedures deviate from ideal.	Has some problems following instructions but procedure adequate for approximate correct test results	One sample within .3 points of the correct pH.	Can list two plausible reasons as to why the pH of the two samples differ and defend reasoning behind hypotheses
2 Major departure from some aspect of standards	Shows some concern or knowledge about safety issues but is careless in handling materials	Major problems with procedures that will likely yield incorrect results.	Neither sample within .3 points, but at least one sample within .5 points.	Can list one plausible reasons as to why the pH of the two samples differ and defend reasoning behind hypothesis
1 Does not meet standards	Disregards safety concerns when handling materials.	Does not follow necessary steps in analysis and cannot obtain useful results	Neither sample within .5 points.	Cannot list any plausible reason why the two samples differ.

¹ From NAAEE. 2004. *Nonformal Environmental Education Programs: Guidelines for Excellence*. Washington, DC: Author.