

Table 5.2 Review Rubric for Teachable Units

Criteria	Levels of Completion		
	Comprehensive	Intermediate	Cursory/Absent
Learning Goals and Outcomes Goals—What students will know, understand, or be able to do Outcomes—What performances or behaviors will indicate accomplishment of the goals	Overall: Students will experience the nature of science in this unit and know what is expected of them. It is clear what students will know, understand, and be able to do after they have completed this unit. The goals are challenging, interesting, and appropriate for the intended students. It is clear what knowledge (concepts, topics, theories, facts, and terminology) students are expected to learn and what behaviors and performances typify understanding.	The goals are clear, but they do not entirely represent the nature of science. Students need more information to know what is expected of them. The prior knowledge that students are expected to have is somewhat inaccurate; this unit may therefore be too challenging or simple.	The goals do not represent the nature of science, or they are otherwise inadequate. For example, they may be too vague, ambiguous, broad, ambitious, detailed, or focused. There are no descriptions of expected student performances or behaviors; students will not know what is expected of them.
Active Learning How students will engage actively in learning	Overall: Students will be actively engaged in learning. The activities follow a logical progression within a unit and will effectively engage students. It is clear how the activities elicit students' prior knowledge and address common misconceptions.	Activities should be more clearly tied to the learning goals, interesting, or student-centered. There are not enough student-centered activities in this unit to elicit prior knowledge, to construct new knowledge, or address common misconceptions.	Activities are exclusively teacher-centered. It is not clear how the activities will engage students in learning, how they build on students' prior knowledge, or how they address misconceptions.
Assessment How instructors will measure student learning How students will self-assess learning	Overall: Students will know what is expected of them and will receive regular feedback about learning. The assessments provide instructors and students with useful feedback about student learning throughout the unit and at the end of the unit. Assessments are designed to drive student learning toward the goals. Criteria for evaluation and grading are clear.	The assessments will measure student learning at some key points, but students will need more feedback during the unit. Alternatively, students will need more opportunities to evaluate their own learning during the unit. Rubrics could provide more clear descriptions of the expected performances and the consequences of each performance.	There are no formative assessments in this unit. The assessments do not adequately measure progress toward or achievement of the learning goals. The assessments do not provide useful feedback to students about learning.

Diversity How all students will be included in learning	Overall: All students will be included in learning. It is clear that the unit is designed to enable students to construct their own learning in the context of their own minds and to engage diverse students. It is clear that the unit addresses multiple aspects of student diversity, such as race, gender, and abilities. Varied teaching methods are used to address different learning goals and engage a diversity of students. A diversity of content, examples, or metaphors is used that are not offensive.	The unit offers some opportunity for students to construct their own learning, but could include more diverse or effective teaching methods. The unit could use more examples that reflect student diversity in cultural background, gender, learning skills, or physical abilities. The unit includes diverse teaching methods, but otherwise does not address student diversity.	The unit is teacher-centered and does not foster student responsibility for learning. The unit does not address diversity or includes potentially off-putting examples.
Alignment How the unit aligns with learning goals	Overall: The unit's activities will help students achieve the learning goals. The assessments will measure student achievement of the goals and provide regular feedback about learning. It is clear how the unit's activities and assessments are aligned with the goals. It is clear how the unit addresses the themes of diversity, assessment, and active learning.	In some cases, it is not clear how the activities help students meet the learning goals, or how the assessments provide feedback about the goals. Certain goals are over- or under-assessed through activities or assessments, which will give students the wrong idea about what is important to learn. There are too many activities for the time period; students will likely feel this unit is "busywork."	The activities and assessments do not align with the learning goals. Students will be confused about which learning goals are important.
Teaching Plan What the instructor and students will do	Overall: Instructors will understand the schedule of events. The plan includes a clear schedule of events for activities and assessments for both the instructor and the students. The sequence of events is logical and aligned with goals. Detailed instructions are provided so that another instructor could easily implement the unit, including guiding questions, tips, and supporting materials. Detailed instructions are provided for students.	The schedule of activities is described broadly, but more detailed instructions are needed for another instructor to implement. The order of events is somewhat logical, but more information is needed to be useful to other instructors. Some minor factual information is inaccurate and should be corrected.	The schedule of activities is vague, not logical, or omitted. Detailed instructions are not included for instructors or students. There are so many inaccuracies in factual information that this unit should not be taught.