

Assessment 3: This assessment measures the teacher candidate's application of the NSTA standards 1, 2, 3, 4, 5, 6, 7, and 8.

This rubric assesses the planning and teaching abilities of the teacher candidate. The rubric presents the performance standards for those wishing to earn a license in either biology or chemistry education (7-12 grades). The instrument is to be completed by the instructor of the Methods of Science Teaching Course. In order to earn recommendation, a candidate must achieve an overall acceptable rating with a minimum acceptable rating in each category. For scoring purposes, each score will be multiplied by 2. The total possible points a candidate can earn is 112 points. For an exemplary rating, the candidate must earn 100-112 points with no unacceptable rating in any category. For an acceptable rating, the candidate must earn 78-99 points with no unacceptable rating in any category. An unacceptable rating results when the candidate scores below 78 points. An F will be given on the assignment. In order to receive a passing grade for the course Methods of Science Teaching Course, an acceptable rating must be earned on the unit plan.

Requirement	Unacceptable (0 Points)	Acceptable (1-2 Points)	Exemplary (3-4 Points)	Score	Score x 2
1. Format	One or more components are missing	All components are present but is not well organized.	All components are present and well-organized		
2. Science content	Content presented contains numerous errors. Content does not related to students' personal lives.	Content is factually correct, comprehensive, and presented at an appropriate depth but does not apply to students' personal lives.	Content is factually correct, comprehensive, and presented at an appropriate depth and applies to students' personal lives.		
3. Learning Goals and Objectives	Objectives are not aligned with procedures and assessments, <u>or</u> most cognitive levels are not addressed <u>or</u> objectives do not meet the needs, interests and abilities of a diverse group of students.	Objectives are aligned with procedures and assessments. <u>Most</u> cognitive levels are addressed. Objectives meet the needs, interests and abilities of a diverse group of students.	Objectives are aligned with procedures and assessments. <u>All</u> cognitive levels are addressed. Objectives meet the needs, interests and abilities of a diverse group of students.		
4. Procedures	Procedures do not include varied resources and activities or procedures do not match objectives.	Procedures do not include a wide variety of resources and activities. Inquiry-based activities are included. Procedures match objectives.	Procedures include a wide variety of resources and activities. Inquiry-based activities are included. Procedures match objectives.		
5. Inquiry	None of the lessons in the unit plan is a	Student-centered inquiry is present at	Candidate implements		

	<p>true discovery or guided inquiry lesson.</p>	<p>least once. Students are engaged in the collection, interpretation and reflection of data.</p>	<p>student-centered inquiry more than once. Students are engaged in the collection, interpretation and reflection of data. Students are engaged in reporting results and drawing conclusions as well as identifying new problems for investigation.</p>		
<p>6. Unifying Concepts</p>	<p>Candidate does not include methods or activities to convey the unifying concepts of science.</p>	<p>Candidate implements a student-centered activity that conveys the unifying concepts of science.</p>	<p>Candidate implements both student centered and teacher centered activities that convey the unifying concepts of science.</p>		
<p>7. Nature of Science</p>	<p>Candidate does address the Nature of Science in unit plan.</p>	<p>Candidate successfully engages learners in a student-centered activity that investigates the historical and cultural development of science and the evolution of knowledge as well as describes the philosophical tenets, assumptions, goals and values of science from technology and other ways of knowing the world.</p>	<p>Candidate successfully engages learners in a student-centered activity that investigates the historical and cultural development of science and the evolution of knowledge. In addition, students participate in the critical analysis of false or doubtful assertions made in the name of science and the Nature of Science is an overall theme of the instructional unit that pursues an understanding of the philosophical tenets, assumptions, goals and values of science that distinguish it from</p>		

			other ways of knowing the world.		
8. Community Resources	Candidate did not include the use of, or relationships to, resources in the community.	Candidate successfully implements a teacher-centered presentation of how science is related to the community.	Candidate successfully implements the involvement of stakeholders and use of community resources to promote learning. In addition, learners are engaged in a student-centered activity that relates science to resources, stakeholders, or resolution of issues important to the community.		
9. Issues	Candidate did not include a Science and Technology related issue or any personal and technological applications	Candidate successfully implements the presentation of a Science and Technology related issue of interest to the learners in a teacher-centered activity.	Candidate successfully engages students in an Inquiry investigation where students are actively engaged in the analysis of problems, including considerations of risks, costs, and benefits of alternative solutions. In addition, the important personal and technological applications of the science content area are an overall theme of the instructional unit.		
10. Technology	Candidate did not include the use of technology.	Candidate implements the use of technology in a weak or ineffective manner.	Candidate successfully implements a Student-centered activity in which the students are actively engaged with technological resources, including but not		

			limited to computers, in the learning of science.		
11. Assessment	Only summative assessment is used.	Summative assessment are used but candidate did not use both diagnostics and formative	Summative assessments, as well as diagnostic <u>and</u> formative assessments are practical and consistent with the instructional goals and opportunities to learn.		
12. Assessment	Candidate does not use assessment to support students' self-reflection and self evaluation <u>and</u> to guide and modify instruction. (Neither component is present)	Candidate uses assessment to support students' self-reflection and self evaluation <u>or</u> guide and modify instruction.	Assessments are used to support students' self-reflection and self-evaluation. Assessments are used to guide and modify instruction		
13. Daily lesson plans	More than one component is missing from daily lesson plans.	Daily lesson plans are written in a well organized manner but one component is missing.	Daily lesson plans are written in a well organized manner with all components present.		
14. Quality	Unit plan has more than a couple of errors <u>or</u> is not typed.	Unit plan has a couple of errors and is typed in a well organized manner.	Unit plan is free of errors and is typed in a well organized manner.		
Score					

Unit plan score:

Total possible score is 112 points.

Exemplary: 100-112 points with no unacceptable rating in any category.

Acceptable: 78-99 points with no unacceptable rating in any category.

Unacceptable: below 78 points. An F will be given on the assignment.

Unit Plan:
Assessment 3

Candidate Name:
Date of Unit Plan:
Overall Score:

Requirement	Comments	Score
Format		
Science content		
Learning Goals and Objectives		
Procedures		
Inquiry		
Unifying Concepts		
Nature of Science		
Community Resources		
Issues		
Technology		
Assessment		
Assessment		
Daily lesson plans		
Quality		