Teacher Candidate_________________________ Semester____________________

Course (circle one) ADO 420 / ADO 421 / ADO 525 / ADO 526 Supervisor____________________

Cooperating Teacher_________________________ Subject_________________________

School_________________________ District______________________________________

The cooperating teacher and supervisor should use the following rating scale to collaboratively evaluate the teacher candidate’s performance in the classroom on the criteria indicated based on the rubrics that follow the standards. These criteria were developed with special consideration regarding the NSTA standards to represent the content-area and pedagogy expectations that the SUNY Oswego School of Education has for its Adolescence Science candidates. Additional feedback can be provided on the final page of this form.

Directions: Use the following rating scale to evaluate your teacher candidate’s performance in your classroom on the criteria indicated below. You have the opportunity and insert specific observations and/or evidence that supports your criteria decisions into the form in the space provided at the end of each standard section entitled: “Observations and Evidence of the candidate to support the standard.” The indent of the space is to document information, observations, and evidence to assist the candidate in improving and/or validating what they have achieved or not.

2= The teacher candidate has demonstrated clear evidence of meeting the target standard.

1= The teacher candidate has begun to demonstrate evidence toward meeting the target standard has not yet met it.

0= The teacher candidate has not demonstrated evidence of meeting the target standard.

No Basis= The teacher candidate has not yet had the opportunity to demonstrate evidence of meeting target standard.
**NSTA Standard 1: Content Knowledge** *(InTASC Standards 4, 6)* Effective teachers of science understand and articulate the knowledge and practices of contemporary science. They interrelate and interpret important concepts, ideas, and applications in their fields. Pre-service teachers will:

a. Know and be able to develop an effective curriculum for the major concepts, principals, theories, laws and interrelationships of their fields of licensure and supporting fields. (NSTA 1 a, 1b, 1c, 4a, 4b)

b. **(Secondary placement)** Lead instruction by communicating key ideas for effective and meaningful lessons in their given content area (biology, chemistry, Earth science, physics) as listed in the core competencies for each discipline. (NSTA 1a, 1c, 2a, 2b, 2c, 4 a, 4b)

c. **(Middle School placement)** Show evidence of being able to lead collaborative inquiry in the laboratory and classroom:

   c. (1) Lead students to understand each content area of biology, physical sciences and earth science.

   c. (2) Develop interdisciplinary lesson plans that considers perspectives from other content areas

   c. (3) Help students understand why science is important to them. (NSTA 3a, 3b)

d. Develops instruction that draws on student prior ideas and moves collective student understanding forward in a manner that supports the open-ended inquiry of scientific ideas. (NSTA 3a, 3b)

e. Show an understanding of state and national curriculum standards and their impact on the content knowledge necessary for teaching P-12 students. (NSTA 1a, 1b, 1c, 6a, 6b)

f. Shown evidence for a deep understanding of the nature of science as a means for analysis of natural phenomenon, prompted by human curiosity and based of the support of evidence. (NSTA 2a, 2b, 2c)

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<td>There are limited opportunities provided for students to learn what is measured by assessments. OR There is a significant mismatch between one or more assessment instruments or methods and the standards/objectives being assessed.</td>
<td>Opportunities are provided for students to learn what is assessed. It is not clear that the assessment of one or more standards/objectives go beyond surface-level understandings.</td>
<td>Opportunities are provided for students to learn what is assessed. The assessments allow students to show some depth of understanding or skill with respect to the standards/objectives. The assessments access both productive (speaking/writing) and receptive (listening/reading) modalities to monitor student understanding.</td>
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Observations and Evidence of the candidate to support the standard.
### NSTA Standard 2: Content Pedagogy (InTASC Standards 2, 5)

Effective teachers of science understand how students learn and develop scientific knowledge. Pre-service teachers use scientific inquiry to develop this knowledge. Pre-service teachers will:

a. Plan lessons in which the standards, objectives and learning tasks are consistently aligned with a central focus. (NSTA 3a, 3b)

b. Plan lessons which demonstrate their ability, knowledge and understanding of how all of students learn science. (NSTA 5a, 5b, 5c, 5d, 5e, 5f)

c. Design instruction and assessment strategies that confront and address naïve conceptions/preconceptions. (NSTA 5a, 5b, 5c, 5e, 5f, 6a, 6b)

d. Plan instruction so that lessons build on one another to create learning communities where students work together to develop and refine common ideas about science concepts. (NSTA 4a, 4b)

e. Implement lessons that include a variety of active inquiry lessons where students collect and interpret data in order to develop and communicate concepts and understand scientific process, relationships and nature patterns from empirical experiences. (NSTA 3a, 3b)

f. Lead students in activities that are intellectually engaging and involve collecting, analyzing, and interpreting data. (NSTA 2a, 2b, 2c)

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<td>The standards, learning objectives, learning tasks, and assessments either have no central focus or a one-dimensional focus (e.g., solely on a scientific phenomenon, science concept, or investigation/experimentation skills). Lacks the engagement of students in authentic learning experiences that relate to real world experiences to science content areas.</td>
<td>The standards, learning objectives, learning tasks, and assessments have an overall focus that is primarily one-dimensional (e.g., a scientific phenomenon, science concept, or investigation/experimentation skills). The focus includes vague connections among science concepts, real world phenomena, and investigation/experimentation skills. Demonstrates the use of a few authentic learning experiences that connect a few real world experiences to science content areas.</td>
<td>Learning tasks and/or the set of assessment tasks focus on multiple dimensions of science learning through clear connections among science concepts, real world phenomena, and investigation/experimentation skills. A progression of learning tasks and assessments is planned to build understanding of the central focus of the learning segment. Demonstrates the use of a variety authentic learning experiences that connect a few real world experiences to science content areas.</td>
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Observations and Evidence of the candidate to support the standard.
**NSTA Standard 3: Learning Environments** *(InTASC Standards 2, 3, 7, 8)* Effective teachers of science are able to plan for engaging students in science learning by setting appropriate goals that are consistent with knowledge of how students learn science and are aligned with state and national standards. The plans reflect the nature and social context of science, inquiry, and appropriate safety considerations. Candidates design and select learning activities, instructional settings, and resources—including technology to achieve those goals; and they plan fair and equitable assessment strategies to evaluate if the learning goals are met. Pre-service teachers will:

a. Plan lessons where learning tasks draw on and engage students in examining their own strengths from preconceptions and experience, social/emotional development and interests. (NSTA 5a, 5b, 5c, 5e, 5f)

b. Build a supportive classroom environment for students that include multiple ways of engaging with content that support students to meet specific standards/objectives within the central focus. (NSTA 3a, 3b, 4a, 5a, 5b, 5c, 5e, 5f)

c. Encourages students to consider their prior learning, experiences, and the collection, analysis, and interpretation of data. (NSTA 8a, 8b, 8c)

d. Plan lessons and/or activities in which students use data and their understanding of science concepts to discuss with each other about the quality of the data and to construct and evaluate explanations. (NSTA 6a, 6b, 8a, 8b, 8c)

e. Facilitate interactions among students to identify weaknesses and limitations of data collection procedures, interpretations and explanations. (NSTA 3a, 3b)

f. Develop a classroom environment that strongly expresses science related to the local community and is able to integrate instruction with meaningful ties to teaching for social justice. (NSTA 7a, 7b)

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<td>Students have limited opportunities to engage with content in ways likely to improve their abilities to collect, analyze, and interpret scientific data. OR Classroom management is problematic and student behavior interferes with learning or there are safety violations visible posing an immediate danger to students. The candidate primarily monitors student understanding by asking surface-level questions and evaluating student responses as correct or incorrect. Candidate responses are not likely to promote student thinking. OR Materials or candidate responses include significant content inaccuracies that will lead to student misunderstandings or misconceptions.</td>
<td>Strategies for intellectual engagement seen in the clips offer opportunities for students to collect, analyze, and interpret scientific data. The candidate monitors student understanding by eliciting student responses that require thinking about science concepts and the quality of data. Candidate responses represent reasonable attempts to improve student abilities to collect, analyze, and interpret scientific data.</td>
<td>Strategies for intellectual engagement seen in the clips offer structured opportunities for students to actively collect, analyze, and interpret scientific data. These strategies reflect attention to student characteristics, learning needs, and/or language needs. The candidate monitors student understanding by eliciting student responses that require thinking about science concepts and the quality of data. Candidate responses build on student input to guide improvement of students’ abilities to collect, analyze, and interpret scientific data.</td>
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Observations and Evidence of the candidate to support the standard.
**NSTA Standard 4: Safety** *(InTASC Standards 1, 3, 7, 8)* Effective teachers of science can, in a P-12 classroom setting, demonstrate and maintain chemical safety, safety procedures, and the ethical treatment of living organisms needed in the P-12 science classroom appropriate to their area of licensure. Pre-service teachers will:

a. Show evidence for understanding the legal and ethical responsibilities of science teachers for the welfare of their students, the proper treatment of animals, and the maintenance and disposal of materials. (NSTA 9a)

b. Have been observed to know and practice safe and proper techniques for the preparation, storage, dispensing, supervision, and disposal of all materials used in science instruction. (NSTA 9b)

c. Know and be able to communicate to students emergency procedures, safe maintenance of equipment, and ensure safety procedures appropriate for the activities and the abilities of students. (NSTA 9c)

d. Show evidence for treating all living organisms used in the classroom or found in the field in a safe, humane, and ethical manner and respect legal restrictions on their collection, keeping, and use. (NSTA 9d)

e. Have analyzed the classroom environment and science storage facilities for unsafe or inadequate situations which to not meet NSTA guidelines. (NSTA 5f, 9a, 9b, 9c, 9d)

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| Science teacher rarely teach, model, and review safety measures with their students regarding classroom, laboratory activities, and the ethical treatment of live specimens  
Teacher rarely inspects equipment for safe functionality before each use, such as: chipped/cracked glassware, frayed/cracked electrical cords, leaking Bunsen burners, etc.  
Science teacher are not knowledgeable concerning emergency situations and procedures | Science teacher occasionally teach, model, and review safety measures with their students regarding classroom, laboratory activities, and the ethical treatment of live specimens  
Teacher sometimes inspects equipment for safe functionality before each use, such as: chipped/cracked glassware, frayed/cracked electrical cords, leaking Bunsen burners, etc.  
Science teachers are knowledgeable concerning some emergency situations and procedures for:  
- chemical spill  
- fire  
- gas leak  
- glass breakage  
- student injury documentation | Science teacher regularly teach, model, and review safety measures with their students regarding classroom, laboratory activities, and the ethical treatment of live specimens.  
Teacher inspects equipment for safe functionality before each use, such as: chipped/cracked glassware, frayed/cracked electrical cords, leaking Bunsen burners, etc.  
Science teacher is knowledgeable concerning emergency situations and procedures for:  
- chemical spill  
- fire  
- gas leak  
- glass breakage  
- student injury documentation |

Observations and Evidence of the candidate to support the standard.
**NSTA Standard 5: Impact on Student Learning** *(InTASC Standards 1, 5, 6)* Effective teachers of science provide evidence to show that P-12 students understanding of major science concepts, principles, theories, and laws have changed as a result of instructions by the candidate and that student knowledge is at a level of understanding beyond memorization. Pre-service teachers will:

- a. Collect, organize, analyze and reflect on diagnostic, formative and summative evidence of change in mental functioning demonstrating that science knowledge is gained and/or corrected. (NSTA 6a, 6b, 8a, 8b, 8c, 10a, 10b, 10c, 10d)

- b. Use a set of assessments that are aligned to the standards and objectives stated in the plan for instruction and throughout the learning segment. (NSTA 6a, 6b, 8a, 8b, 8c, 10a, 10b, 10c, 10d)

- c. Analyze evidence provided by assessment, with a focus on patterns of student understandings, skills, and misunderstandings. (NSTA 6a, 6b, 8a, 8b, 8c, 10a, 10b, 10c, 10d)

- d. Provide clear, specific and accurate feedback to students in order to help students improve and deepen their scientific understandings to evaluate their own work. (NSTA 6a, 6b, 8a, 8b, 8c)

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<td>The criteria/rubric and analysis have little connection with the identified standards/objectives. OR Student work samples do not support the conclusions in the analysis. Next steps are vaguely related to or not aligned with the identified student needs. OR Next steps are not described in sufficient detail to understand them. OR Next steps are based on inaccurate conclusions about student learning from the assessment analysis. Feedback is general and provides little guidance for improvement related to learning objectives. OR The feedback contains significant inaccuracies.</td>
<td>The criteria/rubric and analysis focus on what students did right or wrong in relationship to identified standards/objectives. The analysis of whole class performance describes some differences in levels of student learning for the content assessed. Next steps focus on improving student performance through general support that addresses some identified student needs. Next steps are based on accurate conclusions about student performance on the assessment and are described in sufficient detail to understand them. Feedback, timely identifies what was done well and areas for improvement related to specific learning objectives.</td>
<td>The criteria/rubric and analysis focus on patterns of student errors, misconceptions, skills, and understanding to analyze student learning in relation to standards/objectives. Specific patterns are identified for individuals or subgroup(s) in addition to the whole class. Next steps focus on improving student performance through targeted support to individuals and groups to address specific identified needs. Next steps are based on whole class patterns of performance and some patterns for individuals and/or subgroups and are described in sufficient detail to understand them. Feedback, is specific and timely helps the student understand what s/he has done well, and provides guidance for improvement.</td>
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Observations and Evidence of the candidate to support the standard.
**NSTA Standard 6: Professional Knowledge and Skills** (InTASC Standards 9, 10) Effective teachers of science strive continuously to improve their knowledge and understanding of the ever changing knowledge base of both content and science pedagogy. They identify with and conduct themselves as part of the science education community. Pre-service teachers will:

a. Joined in available professional development opportunities in their content field (i.e.: talks, symposiums and research opportunities). (NSTA 10a, 10b, 10c, 10d)

b. Acts in concert with trends in science teaching practice which are specific and strategic to improve individual and collective student understanding of science concepts and the nature of science. (NSTA 6a, 6b, 10a, 10b, 10c, 10d)

c. Use evidence from assessments in the analysis of students learning to modify instruction for maximizing the effectiveness of instruction. (NSTA 8a, 8b, 10a, 10b, 10c, 10d)

d. Act as a leader in collaborating with other science teachers and school professionals in the positive development of student achievement. (NSTA 10a, 10b, 10c, 10d)

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<td>Daily reflections indicate inconsistent monitoring of student performance.</td>
<td>Daily reflections identify what students could or could not do within each lesson.</td>
<td>Daily reflections indicate monitoring of student progress toward meeting the standards/objectives for the learning segment.</td>
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<td>There is limited evidence of adjusting instruction in response to observed problems, e.g., student confusion, a lack of challenge, time management.</td>
<td>Adjustments to instruction are focused on improving directions for learning tasks, time management, or re-teaching.</td>
<td>Adjustments to instruction are focused on addressing some individual and collective learning needs.</td>
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<td>Candidate’s description of students’ academic language proficiency at lower levels is limited to what they CANNOT do.</td>
<td>Candidate describes academic language strengths and needs of students at different levels of academic language proficiency.</td>
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<td>Language genre(s) discussed is only tangentially related to the academic purposes of the learning segment.</td>
<td>The language genre(s) discussed are clearly related to the academic purpose of the learning segment and language demands are identified.</td>
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<td>Candidate identifies unfamiliar vocabulary without considering other linguistic features.</td>
<td>Candidate identifies vocabulary that may be problematic for students.</td>
<td>Candidate identifies essential vocabulary that may be problematic for students.</td>
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<td>Candidate does not participates and/or interacts with faculty members, team members and other building personal, either formally (during meetings, parent conferences, etc.) and informally (during planning, consulting and casual conversations)</td>
<td>Candidate rarely participates and interacts with faculty members, team members and other building personal, formally (during meetings, parent conferences, etc.) and informally (during planning, consulting and casual conversations)</td>
<td>Candidate participates and interacts with faculty members, team members and other building personal, formally (during meetings, parent conferences, etc.) and informally (during planning, consulting and casual conversations)</td>
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Observations and Evidence of the candidate to support the standard.

Comments about strengths:

Comments about target areas for growth and/or improvement

Cooperating Teacher’s Signature:_________________________ Date________
Supervisor’s Signature:______________________________ Date________