Science Supplemental Student Teaching-Evaluation Form

For Biology, Chemistry, Earth/Space Science, Physics, and
General Science Secondary Majors and Minors

Please have the cooperating teacher fill out this form.

Student Teacher: _____	Student Number _____
Cooperating Teacher _____	School _____
Cooperating Teacher Signature _____	Date: _____

Directions: For each standard, **circle** the number that corresponds to student performance for each area observed:

1= Inadequate 2 = Minimally acceptable 3 = Average 4= Very Good 5=Excellent
NA=Not applicable
** It is not expected that students teachers will teach all ten standards in a given unit but they normally should address most standards during the student teaching experience.

NSTA Standard 1Content:
1a) This student teacher knows and understands the major concepts and principles of the teaching discipline(s) as define by state and national standards of the science education community.

1 2 3 4 5 NA=Not applicable

1.b. This student teacher knows and understands major concepts and principles unifying science disciplines.

1 2 3 4 5 NA=Not applicable

NSTA Standard 2 Nature of Science:
2b) This student teacher engages K-12 students effectively in studies of the nature of science and conventions of scientific explanation.

1 2 3 4 5 NA=Not applicable

NSTA Standard 3 Inquiry:
3b) This student teacher engages K-12 students effectively in scientific inquiry appropriate for their grade level and abilities.

1 2 3 4 5 NA=Not applicable

NSTA Standard 4 Context of Science:
4b) This student teacher engages K-12 students effectively in the study of the relationship of science to other human values and endeavors.

1 2 3 4 5 NA=Not applicable

4c) This student teacher relates science to the personal lives, needs, and interests of K-12 students.

1 2 3 4 5 NA=Not applicable

NSTA Standard 5 Skills of Teaching:

5a) This student teacher uses diverse and effective actions, strategies and methodologies to teach science.

1 2 3 4 5 NA=Not applicable

5b) This student teacher interacts effectively with K-12 students to promote learning and demonstrate student achievement.

1 2 3 4 5 NA=Not applicable

5c) This student teacher organizes and manages science activities effectively in different student groupings.

1 2 3 4 5 NA=Not applicable

5d) This student teacher uses advanced technology to teach K-12 students science.

1 2 3 4 5 NA=Not applicable

5e) This student teacher uses prior conceptions and K-12 student interests to promote learning.

1 2 3 4 5 NA=Not applicable

NSTA Standard 6 Curriculum:

6a) This student teacher develops coherent, meaningful goals, plans, and materials and find resources.

1 2 3 4 5 NA=Not applicable

6b) This student teacher relates plans and resources to professionally-developed state and national standards, including the National Science Education Standards.

1 2 3 4 5 NA=Not applicable

6c) This student teacher plans and develops science curriculum addressing the needs, interests and abilities of all pre-K12 students.

1 2 3 4 5 NA=Not applicable

NSTA Standard 7 Social Context:

7a) Know and understand the values and needs of the community and their effect on the teaching and learning of science.

1 2 3 4 5 NA=Not applicable

7b) This student teacher uses community, human and institutional resources to advance the learning of science in the classroom and field.

1 2 3 4 5 NA=Not applicable

NSTA Standard 8 Assessment:

8a) This student teacher aligns science goals, instruction and outcomes.

1 2 3 4 5 NA=Not applicable

8b) This student teacher knows and uses a variety of contemporary science assessment strategies to determine pre-K-12 student needs and levels of learning and development.

1 2 3 4 5 NA=Not applicable

8c) This student teacher uses assessment appropriately to determine, guide and change science instruction.

1 2 3 4 5 NA=Not applicable

NSTA Standard 9 <u>Environment for Learning:</u>

9a) This student teacher creates and maintains a psychologically and socially safe and supportive learning environment.

1 2 3 4 5 NA=Not applicable

9b) This student teacher manages the activities and materials of science safely in storage areas, labs and field.

1 2 3 4 5 NA=Not applicable

9c) This student teacher keeps and uses living organisms as in the classroom in a safe, ethical and appropriate manner.

1 2 3 4 5 NA=Not applicable

NSTA Standard 10 <u>Professional Practice:</u>

10a) This student teacher knows and participates in professional organizations and activities of the science education community beyond the classroom.

1 2 3 4 5 NA=Not applicable

10b) This student teacher behaves ethically and in the best interests of preK-12 students and the community.

1 2 3 4 5 NA=Not applicable

10c) This student teacher engages in reflective practices and makes continuous efforts to improve in practice.

1 2 3 4 5 NA=Not applicable

10d) This student teacher works willingly with peers, supervisors and others in a professional manner.

1 2 3 4 5 NA=Not applicable

National Science Teachers Association Standards

Standard 1 Content
The program prepares candidates to structure and interpret the concepts, ideas and relationships in science that are needed to advance student learning in the area of licensure as defined by state and national standards developed by the science education community. Content refers to concepts and principles understood through science; concepts and relationships unifying science domains; processes of investigation in a science discipline; and applications of mathematics in science research.

Standard 2 Nature of Science
The program prepares teachers to engage students in activities to define the values, beliefs and assumptions inherent to the creation of scientific knowledge within the scientific community, and contrast science to other ways of knowing. Nature of science refers to characteristics distinguishing science from other ways of knowing; characteristics distinguishing basic science, applied science, and technology; processes and conventions of science as a professional activity; and standards defining acceptable evidence and scientific explanation.

Standard 3 Inquiry
The program prepares candidates to engage students regularly and effectively in science inquiry and facilitate understanding of the role inquiry plays in the development of scientific knowledge. Inquiry refers to questioning and formulating solvable problems; reflecting on, and constructing, knowledge from data; collaborating and exchanging information while seeking solutions; and developing concepts and relationships from empirical experience.

Standard 4 Context of Science
The program prepares candidates to relate science to the daily lives and interests of students and to a larger framework of human endeavor and understanding. The context of science refers to relationships among systems of human endeavor including science and technology; relationships among scientific, technological, personal, social and cultural values; and the relevance and importance of science to the personal lives of students.

Standard 5 Skills of Teaching
The program prepares candidates to create a community of diverse student learners who can construct meaning from science experiences and possess a disposition for further inquiry and learning. Skills of Teaching refers to science teaching actions, strategies and methodologies; interactions with students that promote learning and achievement; effective organization of classroom experiences; use of advanced technology to extend and enhance learning; and the use of prior conceptions and student interests to promote new learning.

Standard 6 Curriculum
The program prepares candidates to develop and apply a coherent, focused science curriculum that is consistent with state and national standards for science education and appropriate for addressing the needs, abilities and interests of students. Science curriculum refers to an extended framework of goals, plans, materials, and resources for instruction and the instructional context, both in and out of school, within which pedagogy is embedded.

Standard 7 Social Context
The program prepares candidates to relate science to the community and to use human and institutional resources in the community to advance the education of their students in science. The social context of science teaching refers to the social and community support network within which science teaching and learning occur; relationship of science teaching and learning to the needs and values of the community; and involvement of people and institutions from the community in the teaching of science.

Standard 8 Assessment
The program prepares candidates to use a variety of contemporary assessment strategies to evaluate the intellectual, social, and personal development of the learner in all aspects of science. Assessment refers to the alignment of goals, instruction and outcomes; measurement and evaluation of student learning in a variety of dimensions and the use of outcome data to guide and change instruction.

Standard 9 Environment for Learning
The program prepares candidates to design and manage safe and supportive learning environments reflecting high expectations for the success of all students. Learning environments refers to the physical spaces within which learning of science occurs; psychological and social environment of the student engaged in learning science; treatment and ethical use of living organisms; and safety in all areas related to science instruction.

Standard 10 Professional Practice
The program prepares candidates to participate in the professional community, improving practice through their personal actions, education and development. Professional practice refers to knowledge of, and participation in, the activities of the professional community; ethical behavior consistent with the best interests of students and the community; reflection on professional practices and continuous efforts to ensure the highest quality of science instruction; and willingness to work with students and new colleagues as they enter the profession.