School of Biological Sciences
Illinois State University

Program Learning Objectives for the B.S. Degree

The B.S. program in Biological Sciences prepares students for continuing into graduate and professional programs, for careers as biology teachers, and for careers in the expanding areas of biology-related fields. Students in the program gain a deep understanding of the discipline of biology.

-First, they develop an understanding of the fundamental concepts that unite fields of biology. These concepts are central themes that are essential for anyone pursuing a career in biology-related fields.

-Next, students are shown that biology is a set of related disciplines. Students gain insight into the unique aspects of subdisciplines as well as an integrated view of these disciplines as part of the unified field.

-Additionally, students are encouraged to gain an understanding of scientific research as a process. This is accomplished by covering the scientific method and research approaches, as well as encouraging students to participate in research projects under faculty supervision.

-Finally, students involved in the program develop related skills such as statistical evaluation and scientific literacy.

Program Goal	**Understanding of fundamental concepts of Biology**					
Outcomes	**Data Needed**	**Data Already Available**	**What group will be assessed**	**Assessment Methods**	**Who will conduct assessment**	**Timeline**
Demonstrating command of material through performance in Core classes	Student scores on exams & labs	Yes	Students enrolled in BSC 196, 197, 219 & 297	Direct: Examinations, problem solving worksheets, lab reports	Course instructors will perform immediate assessment; School Undergraduate Studies Committee will collect and review performance	Annual
Alumni satisfaction	Responses to alumni survey regarding quality of content of general core classes	Yes but modification of questions is needed	Graduates of B.S. program	Indirect: Survey	Assistant Director of Undergraduate Studies	Performed as part of Program Review
Content exam	Scores on standardized content exam	No	Incoming Freshmen, students in Junior year and students in Senior semester	Direct: Standardized exam with questions covering fundamental biological concepts	Undergraduate Studies Committee	Annual

Program Goal	**Insight into disciplines that extend from central concepts**					
Outcomes	**Data Needed**	**Data Already Available**	**What group will be assessed**	**Assessment Methods**	**Who will conduct assessment**	**Timeline**
Performance in elective courses	Student scores on exams and labs	Yes	Students in elective BSC major courses including flexible core classes	Direct: Examinations, problem solving worksheets, lab reports	Course instructors will perform immediate assessment; School Undergraduate Studies Committee will collect and review performance	Annual
C or better grade in 300-level course	Student grade in BSC major 300-level courses	Yes	Undergrads enrolled in 300-level courses	Direct: Examinations, problem solving worksheets, lab reports	Course instructors will perform immediate assessment; School Undergraduate Studies Committee will collect and review performance	Annual
Student satisfaction	Student responses to course survey	Yes	Students enrolled in BSC major elective courses	Indirect: Student survey	School of Biological Sciences	Annual

Program Goal	**Functional understanding or scientific method and research**					
Outcomes	**Data Needed**	**Data Already Available**	**What group will be assessed**	**Assessment Methods**	**Who will conduct assessment**	**Timeline**
Exposure to scientific method and exercises in its proper uses and limitations	Student grades in BSC 204 Biological Investigations and other teaching labs	Yes	All majors	Direct: Writing assignments, research proposals and discussions on research approach	Course instructors will perform immediate assessment; School Undergraduate Studies Committee will collect and review performance	Annual
Student involvement in research projects	Enrollment and progress in BSC 290	Yes	Students enrolled in BSC 290	Direct: Students and faculty mentor will produce written progress report of research each semester	Faculty mentor will forward to Undergraduate Studies committee	Annual
Student involvement in Senior Thesis	Enrollment and performance in BSC 303	Yes	Students completing senior thesis option	Direct: Students will write and defend a thesis based on their personal research project	Senior thesis committee and Undergraduate Studies Committee	Annual

Program Goal	**Fostering development of related skills**					
Outcomes	**Data Needed**	**Data Already Available**	**What group will be assessed**	**Assessment Methods**	**Who will conduct assessment**	**Timeline**
Familiarity with statistical analyses	Student performance in BSC 196, 197, 201 and 204 in which basic statistical methods are covered	No. Specific data needs to be refined	All majors	Direct: Quiz, homework, and lab assignments	Course instructors will perform immediate assessment; School Undergraduate Studies Committee will collect and review performance	Annual
Scientific literacy	Student performance in BSC 204 and other classes in which they utilize primary scientific literature	Yes/No Data from BSC 204 is now available and other courses will be using primary literature more in coming semesters	All majors in BSC 204 and other courses utilizing primary literature	Direct: Written reports, class discussions, and homework requiring reading or writing of scientific technical writing.	Course instructors will perform immediate assessment; School Undergraduate Studies Committee will collect and review performance	Annual
Student satisfaction	Student responses to course survey	Yes	Students enrolled in BSC major elective courses	Indirect: Student survey	School of Biological Sciences	Annual

Realizing the Democratic Ideal, Illinois State University Student Teaching
Performance Assessment Rubric
edPR Version, Fall 2013

The democratic conception of education informs all aspects of teacher education at Illinois State University. Graduates ready to meet the challenges and rewards of serving students in a democratic society embody the ethical and intellectual aspects of teaching and learning.

The Ethical Commitments are:

1. The teacher candidate demonstrates sensitivity toward the varieties of individual and cultural diversity. [EC1: sensitivity—diversity]
2. The teacher candidate demonstrates a disposition and ability to collaborate effectively with others. [EC2: collaboration]
3. The teacher candidate demonstrates high regard for learning and a seriousness of personal, professional, and public purpose. [EC3: regard for learning]
4. The teacher candidate demonstrates a respect for learners of all ages and a special regard for children and adolescents. [EC4: respect for learners]

The Intellectual Commitments are:

1. The teacher candidate demonstrates a wide general knowledge and a deep knowledge of the content to be taught. [IC1: knowledge]
2. The teacher candidate demonstrates knowledge and appreciation of the diversity among learners. [IC2: diversity among learners]
3. The teacher candidate demonstrates an understanding of what affects learning and of appropriate teaching strategies. [IC3: understand learning]
4. The teacher candidate demonstrates an interest in and ability to seek out informational, technological, and collegial resources. [IC4: resourceful]
5. The teacher candidate demonstrates a contagious intellectual enthusiasm and courage enough to be creative. [IC5: enthusiasm]

Of the challenges facing teachers and other school personnel in the 21st century, none is more pressing than the need for them to develop and maintain a strong sense of their ethical and intellectual commitments — a professional identity. Toward this end, Illinois State University prepares teachers and other school personnel who have a dynamic, reflective sense of themselves and their mission; through caring and knowing, they work to realize the democratic ideal.

Appraisal Scale: U = unacceptable (1), S = Satisfactory (2), P = Proficient (3), E = Exemplary (4)

Realizing the Democratic Ideal, Illinois State University Student Teaching Performance Assessment Rubric
edPR Version, Fall 2013

____Midterm Assessment ____Final Assessment

Student Teacher:_____ UID:_____

Major:_____ Semester:_____

School:_____ University Supervisor:_____

School District:_____ Grade Level(s):_____

Cooperating Teacher:_____ Subjects:_____

Appraisal Scale: U = unacceptable (1), S = satisfactory (2), P = proficient (3), E = exemplary (4)

	Appraisal	Evidence (use * to indicate in LiveText)
Professional Demeanor		
1. Communicates effectively (written, verbal, nonverbal) [IC5: enthusiasm]	_____	_____
2. Demonstrates professional practice consistent with an appropriate philosophy of education [EC3: regard for learning]	_____	_____
3. Seeks appropriate opportunities for professional development [IC4: resourceful; IC5: enthusiasm]	_____	_____

Appraisal Scale: U = unacceptable (1), S = Satisfactory (2), P = Proficient (3), E = Exemplary (4)

	Appraisal	Evidence (use * to indicate in LiveText)
Teaching and Learning		
4. Appropriately integrates instructional resources, including technology, into the curriculum to support student learning [IC4: resourceful]	_____	_____
Interpersonal Skills		
5. Develops positive working relationships with others involved in the educational setting [EC2: collaboration]	_____	_____
6. Includes families in the education process [EC2: collaboration; IC4: resourceful]	_____	_____

The teacher candidate has demonstrated acceptable performance (satisfactory or better) for each indicator: **YES** _____ **NO** _____

University Supervisor: _____ Date: _____
(Signature)

Cooperating Teacher: _____ Date: _____
(Signature)

Teacher Candidate: _____ Date: _____
(Signature)

Comments (use back for additional comments):

Appraisal Scale: U = unacceptable (1), S = Satisfactory (2), P = Proficient (3), E = Exemplary (4)

Appraisal Scale: U = unacceptable (1), S = Satisfactory (2), P = Proficient (3), E = Exemplary (4)

Realizing the Democratic Ideal, Illinois State University Student Teaching Performance Assessment Rubric
edPR Version, Fall 2013

This rubric presents elements of student teaching performance that are (1) broadly applicable to the variety of programs at Illinois State University and (2) aligned with the Ethical and Intellectual Commitments (codes noted in brackets, full text at the end of this document) associated with *Realizing the Democratic Ideal*, the University's conceptual framework for teacher education. Other indicators of the conceptual framework will be assessed in the edTPA assessment. This assessment is not a grading scale.

Indicator **The teacher candidate, in a professional and ethical manner,:**	**Unacceptable (1)**	**Satisfactory (2)** **Novice Teacher**	**Proficient (3)** **Novice Teacher**	**Exemplary (4)** **Experienced Teacher, *rare* to be seen in student teaching**	**Examples of Possible Evidence**
Regarding professional demeanor					
1. Communicates effectively (written, verbal, and nonverbal). [IC5: enthusiasm]	Communicates in ways that do not promote a positive effect on learning. Communications are poorly organized, inappropriate, and/or are error-ridden.	Communicates in ways that are effective, respectful of the audience, accurate, and meaningful.	Consistently communicates in ways that are effective, respectful of the audience, accurate, and meaningful and that contribute to a positive learning environment.	Consistently communicates in ways that are effective, respectful of the audience, accurate, and meaningful and that contribute to a positive learning environment. The candidate identifies barriers to effective communication and uses appropriate strategies to overcome them.	Bulletin boards Lesson Videos Letters to parents Notes to students Candidate-made materials
2. Demonstrates professional practice consistent with an appropriate philosophy of education. [EC3: regard for learning]	Makes instructional choices that are inconsistent with one's philosophy of education or has an inappropriate philosophy of education.	Attempts to align learning activities with one's philosophy of education.	Aligns educational practice (e.g., planning, implementation, interactions with students) with one's philosophy of education.	Adapts one's philosophy of education through reflection on experience and deeper understanding of teaching and learning. The philosophy is reflected widely in activities and interactions with children, families, and other education professionals.	Portfolio including essay (position paper) Reflections Supervisor Reports Lesson Plans

Appraisal Scale: U = unacceptable (1), S = Satisfactory (2), P = Proficient (3), E = Exemplary (4)

Indicator The teacher candidate, in a professional and ethical manner,:	Unacceptable (1)	Satisfactory (2) Novice Teacher	Proficient (3) Novice Teacher	Exemplary (4) Experienced Teacher, *rare* to be seen in student teaching	Examples of Possible Evidence
3. Seeks appropriate opportunities for professional development. [IC4: resourceful; IC5: enthusiasm]	Participates in no supplemental opportunities for professional development.	Participates in appropriate professional development activities, beyond those required by the school or district (more than internet research).	Applies insights (knowledge, skills, etc.) gained from professional development to practice.	Provides professional development for others (e.g., by sharing insights gained or organizing professional development opportunities).	Reflections on attendance at professional conferences Membership in professional organization
Regarding teaching and learning					
4. Appropriately integrates instructional resources, including technology, into the curriculum to support student learning. [IC4: resourceful]	Does not integrate resources, including technology, into the curriculum or does so in a manner that does not support student learning.	Effectively integrates a variety of appropriate instructional resources, including available technology, into the curriculum.	Uses a variety of instructional resources, including technology, on a regular basis, to enhance the delivery of the content and make the content accessible to all students.	Uses a wide variety of instructional resources, including technology, consistently and effectively in designing, implementing, and assessing meaningful learning activities.	Computer programs Essays, Interviews Individual plans Observation reports Journals, Pictures Lesson plans
Regarding interpersonal skills					
5. Develops positive working relationships with others involved in the educational setting. [EC2: collaboration]	Has limited positive interaction with others and/or interpersonal conduct hinders professional relationships to serve students effectively.	Interacts and cooperates with other teachers courteously and respectfully to promote professional relationships.	Cultivates positive interactions that extend to support staff, school volunteers, other specialists, and/or community professionals to serve students more effectively.	Collaborates regularly with a variety of individuals to enhance practice and serve students effectively.	Involvement in team or other Professional meetings Cooperating Teacher reports University Supervisor reports Written communications Peer critique Team developed and taught lesson plans
6. Includes families in the education process. [EC2: collaboration; IC4: resourceful]	Shows no evidence of interaction with families.	Engages in some outreach attempts, (e.g., parent/teacher conferences, written communications, phone conversations).	Implements a plan to include families in the educational process (e.g., web-based, schedule of conference opportunities, variety of activities).	Diligently seeks opportunities to interact with families with the intent of incorporating them into the educational process.	Attendance at PTO meetings or other family school functions Phone Logs Newsletters

Appraisal Scale: U = unacceptable (1), S = Satisfactory (2), P = Proficient (3), E = Exemplary (4)

2012 NSTA Preservice Science Standards

NSTA Standard 1: Content Knowledge 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 of licensure.
Below are the elements of the standard.
Preservice teachers will: 1a) Understand the major concepts, principles, theories, laws, and interrelationships of their fields of licensure and supporting fields as recommended by the National Science Teachers Association. 1b) Understand the central concepts of the supporting disciplines and the supporting role of science-specific technology. 1c) Show an understanding of state and national curriculum standards and their impact on the content knowledge necessary for teaching P-12 students.
Assessment: *This Standard is usually met using Assessments 1- state licensure exam and Assessment 2 - comprehensive content exams or science courses' GPA and content analysis form.*

NSTA Standard 2: Content Pedagogy Effective teachers of science understand how students learn and develop scientific knowledge. Preservice teachers use scientific inquiry to develop this knowledge for all students.
Below are the elements of the standard.
Preservice teachers will: 2a) Plan multiple lessons using a variety of inquiry approaches that demonstrate their knowledge and understanding of how all students learn science. 2b) Include active inquiry lessons where students collect and interpret data in order to develop and communicate concepts and understand scientific processes, relationships and natural patterns from empirical experiences. Applications of science-specific technology are included in the lessons when appropriate. 2c) Design instruction and assessment strategies that confront and address naïve concepts/preconceptions.
Assessment: *This Standard is usually met using Assessment 3 - Unit Plan.*

NSTA Standard 3: Learning Environments

Effective teachers of science are able to plan for engaging all 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 science-specific technology, to achieve those goals; and they plan fair and equitable assessment strategies to evaluate if the learning goals are met.

Below are the elements of the standard.

Preservice teachers will:

3a) Use a variety of strategies that demonstrate the candidates' knowledge and understanding of how to select the appropriate teaching and learning activities – including laboratory or field settings and applicable instruments and/or technology- to allow access so that all students learn. These strategies are inclusive and motivating for all students.

3b) Develop lesson plans that include active inquiry lessons where students collect and interpret data using applicable science-specific technology in order to develop concepts, understand scientific processes, relationships and natural patterns from empirical experiences. These plans provide for equitable achievement of science literacy for all students.

3c) Plan fair and equitable assessment strategies to analyze student learning and to evaluate if the learning goals are met. Assessment strategies are designed to continuously evaluate preconceptions and ideas that students hold and the understandings that students have formulated.

3d) Plan a learning environment and learning experiences for all students that demonstrate chemical safety, safety procedures, and the ethical treatment of living organisms within their licensure area.

***Assessment**: This Standard is usually met using Assessment 3 - Unit Plan.*

NSTA Standard 4: Safety

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.

Below are the elements of the standard.

Preservice teachers will:

4a) Design activities in a P-12 classroom that demonstrate the safe and proper techniques for the preparation, storage, dispensing, supervision, and disposal of all materials used within their subject area science instruction.

4b) Design and demonstrate activities in a P-12 classroom that demonstrate an ability to implement emergency procedures and the maintenance of safety equipment, policies and procedures that comply with established state and/or national guidelines. Candidates ensure safe science activities appropriate for the abilities of all students.

4c) Design and demonstrate activities in a P-12 classroom that demonstrate ethical decision-making with respect to the treatment of all living organisms in and out of the classroom. They emphasize safe, humane, and ethical treatment of animals and comply with the legal restrictions on the collection, keeping, and use of living organisms.

***Assessment:** This Standard is usually met using Assessments 3 - Unit Plan and Assessment 4- Student Teaching Observation Form.*

NSTA Standard 5: Impact on Student Learning

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 instruction by the candidate and that student knowledge is at a level of understanding beyond memorization. Candidates provide evidence for the diversity of students they teach.

Below are the elements of the standard.

Preservice teachers will:

5a) Collect, organize, analyze, and reflect on diagnostic, formative and summative evidence of a change in mental functioning demonstrating that scientific knowledge is gained and/or corrected.

5b) Provide data to show that P-12 students are able to distinguish science from nonscience, understand the evolution and practice of science as a human endeavor, and critically analyze assertions made in the name of science.

5c) Engage students in developmentally appropriate inquiries that require them to develop concepts and relationships from their observations, data, and inferences in a scientific manner.

Assessment: *This Standard is usually met using Assessment 5 – Evidence of P-12 student learning.*

Standard 6: Professional Knowledge and Skills

Effective teachers of science strive continuously to improve their knowledge and understanding of the ever changing knowledge base of both content, and science pedagogy, including approaches for addressing inequities and inclusion for all students in science. They identify with and conduct themselves as part of the science education community.

Below are the elements of the standard.

Preservice teachers will:

6a) Engage in professional development opportunities in their content field such as talks, symposiums, research opportunities, or projects within their community.

6b) Engage in professional development opportunities such as conferences, research opportunities, or projects within their community.

Assessment*: This Standard is usually met using Assessment 6 – Evidence of Professional Knowledge and Skills.*

Planning Rubrics - Rubric 1: Planning for Scientific Understandings

EVIDENCE: Planning commentary prompt 1, lesson plans, instructional materials, assessments

How do the candidate's plans build students' abilities to use science concepts and scientific practices during inquiry to explain a real-world phenomenon?				
EMERGING PERFORMANCE[4]		**PROFICIENT PERFORMANCE**	**ADVANCED PERFORMANCE**	
Plans for instruction **focus solely on memorization and following prescribed procedures for an "inquiry" with no opportunities** for students to engage in scientific practices through inquiry.	Plans for instruction **include opportunities** for students to engage in scientific practices through inquiry.	Plans for instruction **build on each other** to support students **learning of science concepts, to investigate a phenomenon** and to **generate explanations through engagement in scientific practices through inquiry.**	Plans for instruction build on each other to support students learning of science concepts, to investigate a phenomenon, and to **generate evidence- based arguments.**	Plans for instruction build on each other to support students learning of science concepts, to investigate a phenomenon, and to generate and **evaluate** evidence-based arguments.
There are **significant content inaccuracies** that will lead to student misunderstandings. OR Standards, objectives, and learning tasks and materials are **not aligned** with each other.				
LOOK FORs: Learning tasks • are teacher directed • focus on practice of skills/facts/procedures/conventions • limits opportunities to develop **subject specific understandings**[5] • include consistent content errors • are not aligned with learning outcomes		LOOK FORs: Learning tasks • are aligned with learning outcomes • build skills/facts/procedures and subject specific understandings (but may be unbalanced)	LOOK FORs: **All from Proficient and…** Learning Tasks • are sequenced in a learning progression across lessons • build skills/facts/procedures/conventions **and** deep subject specific understandings across all lessons • support students to understand the relationship between skills/facts/procedures/conventions and subject specific understandings	

[4] Text representing key differences between adjacent score levels is shown in bold. Evidence that does not meet Level 1 criteria is scored at Level 1.

[5] See edTPA handbooks for the subject specific understandings

Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced

Planning Rubrics - Rubric 2: Planning to Support Varied Student Learning Needs

EVIDENCE: Planning commentary prompts 2 & 3, lesson plans, instructional materials

How does the candidate use knowledge of his/her students to target support for students to use science concepts and scientific practices during inquiry to explain a real-world phenomenon?

EMERGING PERFORMANCE		PROFICIENT PERFORMANCE	ADVANCED PERFORMANCE	
There is little or no evidence of planned supports.	Planned supports are loosely tied to learning objectives or the central focus of the learning segment. AND Candidate attends to requirements in IEPs and 504 plans.	Planned supports are tied to learning objectives and the central focus with attention to the characteristics of the class as a whole. AND Candidate attends to requirements in IEPs and 504 plans.	Planned supports are tied to learning objectives and the central focus. Supports address the needs of specific individuals or groups with similar needs. AND Candidate attends to requirements in IEPs and 504 plans.	Level 4 plus: Supports include specific strategies to identify and respond to preconceptions, common errors and misunderstandings for the majority of students.
LOOK FORs: Planned supports • are superficially aligned with learning outcomes (e.g., some lessons address additional outcomes or miss key outcomes related to the central focus) • are limited or missing • do not address IEP/504 requirements		LOOK FORs: Planned supports • are aligned with learning outcomes • are appropriate for the needs of the whole class • address IEPs/504 requirements	LOOK FORs: All from Proficient and… Planned supports • are designed to scaffold learning for a variety of students (e.g., English learners, struggling readers, underperforming or gifted students) • identify and respond to potential misconceptions or partial understandings	
Evidence: Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced				

Planning Rubrics - Rubric 3: Using Knowledge of Students to Inform Teaching and Learning

EVIDENCE: Planning commentary prompts 2 & 3

How does the candidate use knowledge of his/her students to justify instructional plans?

EMERGING PERFORMANCE		PROFICIENT PERFORMANCE	ADVANCED PERFORMANCE	
Candidate's justification of learning tasks is either **missing** OR **represents a deficit view** of students and their backgrounds.	Candidate justifies learning tasks with **limited attention** to students' prior learning OR personal/cultural/community assets.	Candidate **justifies** why learning tasks (or their adaptations) **are appropriate using:** • examples of students' prior learning OR • examples of personal/cultural/ community assets Candidate makes **superficial connections to research and/or theory.**	Candidate justifies why learning tasks (or their adaptations) are appropriate using: • examples of students' prior learning AND • examples of personal/cultural/ community assets **Candidate makes connections to research and/or theory.**	Level 4 plus: Candidate's justification is supported by **principles from research and/or theory.**
LOOK FORs: Justification for plans includes: • superficial descriptions of students' prior learning OR lived experiences • pervasively negative portrayal of students' backgrounds, educational experiences or family/community characteristics (e.g., exclusive focus on student needs or gaps without acknowledging strengths)		LOOK FORs: Justification for plans includes: • concrete, specific connections between tasks and prior learning (academic OR lived experiences/assets) • surface level discussion of theory or research	LOOK FORs: All from Proficient and Justification for plans includes: • concrete, specific connections between tasks and prior learning (academic AND lived experiences/assets) • grounded discussion of theory or research (e.g., goes beyond "name dropping")	

Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced

Planning Rubrics - Rubric 4: Identifying and Supporting Language Demands

EVIDENCE: Planning commentary prompt 4, lesson plans, instructional materials

How does the candidate identify and support language demands associated with a key science learning task?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr>
<td>Language demands[5] identified by the candidate are not consistent with the selected language function[6] or task.

OR

Language supports are missing or are not aligned with the language demand(s) for the learning task.</td>
<td>Candidate identifies vocabulary and/or symbols as the major language demand associated with the language function. Attention to additional language demands is superficial.

Language supports primarily address definitions of vocabulary and/or symbols.</td>
<td>Candidate identifies vocabulary and/or symbols and additional language demand(s) associated with the language function.

Plans include general support for use of vocabulary and/or symbols as well as additional language demand(s).</td>
<td>Candidate identifies vocabulary and/or symbols and additional language demand(s) associated with the language function.

Plans include targeted support for use of vocabulary and/or symbols as well as additional language demand(s).</td>
<td>Level 4 plus:
Instructional supports are designed to meet the needs of students with different levels of language learning.</td>
</tr>
<tr>
<td colspan="2">LOOK FORs:
Vocabulary is only demand identified.
Mismatch between language demands and:
• language function
• language supports
• learning task

Supports are not included or focus on vocabulary.</td>
<td>LOOK FORs:

Language demands include function, vocabulary AND discourse/syntax

Supports generally address some aspects of all demands identified.</td>
<td colspan="2">LOOK FORs:
All from Proficient and…

Supports are strategically designed to address all language demands for students with varying characteristics and language needs.</td>
</tr>
<tr>
<td colspan="5">Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced</td>
</tr>
</table>

[5] Language demands include: language function, vocabulary, syntax and grammar, and discourse (organizational structures, text structure, etc.).

[6] Language function refers to the learning outcome (verb) selected in prompt 4a (e.g., analyze, interpret…).

Planning Rubrics - Rubric 5: Planning Assessments to Monitor and Support Student Learning

EVIDENCE: Planning commentary prompt 5, lesson plans, assessments

How are the informal and formal assessments selected or designed to monitor students' progress toward the standards/objectives?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr><td>The assessments ONLY provide evidence of students' ability to memorize and follow prescribed procedures.

Assessment adaptations required by IEP or 504 plans are NOT made.</td><td>The assessments provide limited evidence to monitor students' understandings of science concepts, phenomena, and the application of scientific practices during scientific inquiry during the learning segment.

Assessment adaptations required by IEP or 504 plans are made.</td><td>The assessments provide evidence to monitor students' understandings of science concepts, phenomena, and the application of scientific practices during scientific inquiry during the learning segment.

Assessment adaptations required by IEP or 504 plans are made.</td><td>The assessments provide multiple forms of evidence to monitor students' progress toward developing understandings of science concepts, phenomena, and the application of scientific practices during scientific inquiry throughout the learning segment.

Assessment adaptations required by IEP or 504 plans are made.</td><td>Level 4 plus:
The assessments are strategically designed to allow individuals or groups with specific needs to demonstrate their learning.</td></tr>
<tr><td colspan="2">Assessments are NOT aligned with the central focus and standards/objectives for the learning segment.</td><td></td><td></td><td></td></tr>
<tr><td colspan="2">LOOK FORs:
• Majority of Assessments:
o provide minimal evidence of subject specific understandings (e.g., rote responses of facts or skills)
o are not aligned with full scope of subject specific outcomes
• IEP/504 requirements for adaptations/modifications are not addressed</td><td>LOOK FORs:
• Majority of Assessments:
o provide evidence of subject specific understandings
• IEP/504 requirements for adaptations/modifications are addressed</td><td colspan="2">LOOK FORs:
All from Proficient and…
• Assessments:
o provide evidence of the full range of subject specific understandings
o are used in each lesson
o are differentiated so students show understandings in various ways</td></tr>
<tr><td colspan="5">Evidence:</td></tr>
</table>

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced

Instruction Rubrics - Rubric 6: Learning Environment

EVIDENCE: Video clips, instruction commentary prompt 2

How does the candidate demonstrate a safe and respectful learning environment that supports students' engagement in learning?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr>
<td>The clips reveal evidence of disrespectful interactions between teacher and students or between students.

OR

Candidate allows disruptive behavior to interfere with student learning.</td>
<td>The candidate demonstrates respect for students.

Candidate provides a learning environment that serves primarily to control student behavior, and minimally supports the learning goals.</td>
<td>The candidate demonstrates rapport with and respect for students.

Candidate provides a positive, low-risk social environment that reveals mutual respect among students.</td>
<td>The candidate demonstrates rapport with and respect for students.

Candidate provides a challenging learning environment that promotes mutual respect among students.</td>
<td>The candidate demonstrates rapport with and respect for students.

Candidate provides a challenging learning environment that provides opportunities to express varied perspectives and promotes mutual respect among students.</td>
</tr>
<tr>
<td colspan="2">LOOK FORs:
• Respect (e.g., attentive listening to student responses)
• Disrespectful interactions
• Disruptive behaviors (e.g., interfere with lesson flow and engagement)
• Controlling or directive environment (e.g., Ss engage in teacher led tasks with little discussion or interaction)
• minimal support for learning goals</td>
<td>LOOK FORs:
• Rapport (e.g., T shows positive interactions with Ss)
• Mutual respect (e.g., shared between students and teacher)
• Low risk (e.g., Students ask and answer questions openly)</td>
<td colspan="2">LOOK FORs:
All from Proficient and…
• Challenging (e.g., high-order questions, such as, "what's another way to think of that? Who has another perspective?")
• Perspectives (e.g., express alternative responses or perspectives)</td>
</tr>
<tr>
<td colspan="5">Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced</td>
</tr>
</table>

Instruction Rubrics - Rubric 7: Engaging Students in Learning

EVIDENCE: Video clips, Instruction commentary prompt 3

How does the candidate actively engage students in analyzing and interpreting scientific data to construct evidence-based arguments of real-world phenomenon?

EMERGING PERFORMANCE		PROFICIENT PERFORMANCE	ADVANCED PERFORMANCE	
In the clip(s), Candidate **does not ask students to construct an evidence-based argument.**	In the clip(s), Candidate asks students to construct a scientific argument but **students do not provide any evidence to support the argument.**	In the clip(s), **Candidate supports students in constructing a scientific argument** and students **refer to data OR acceptable science concepts but do not explain how it supports the argument.**	In the clip(s), Candidate supports students in constructing **an evidence-based argument** and students **explain how data and acceptable science concepts support the argument.**	In the clip(s), Candidate supports students in constructing **and evaluating** an evidence-based argument and students explain how data and acceptable science concepts support the argument.
There is little or no evidence that the candidate **links students' prior academic learning or personal, cultural, community, or developmental assets with new learning.** OR **Links cause student confusion.**	Candidate **makes vague or superficial links** between **prior academic learning and new learning.**	Candidate **links prior academic learning to new learning.**	Candidate links **both** prior academic **learning and personal, or cultural, community assets** to new learning.	Candidate **prompts students to link** prior academic learning and personal, cultural, community assets to new learning.
LOOK FORs: • Loose connection between tasks and central focus • Tasks focus on low-level content (e.g., facts in isolation) • Links to prior learning or lived experiences are limited • Students are confused by links to content (e.g., metaphors)		LOOK FORs: • Tasks focus on subject specific understandings • Links (e.g., candidate connects previous instruction/learning to new content)	LOOK FORs: All from Proficient and… • Tasks develop/deepen subject specific understandings • Links (e.g., Teacher or students connects new learning with prior instruction/learning AND lived experiences)	

Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced

Instruction Rubrics - Rubric 8: Deepening Student Learning

EVIDENCE: Video clips, Instruction commentary prompt 4a

How does the candidate elicit responses to promote thinking and understandings of science concepts and abilities to apply scientific practices during scientific inquiry?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr><td>Students provide few responses.

OR

Candidate responses include significant content inaccuracies that will lead to student misunderstandings.</td><td>Candidate primarily asks surface-level questions and evaluates student responses as correct or incorrect.</td><td>Candidate elicits student responses related to understanding science concepts, scientific practices and inquiry, and the phenomenon being investigated.</td><td>Candidate elicits and builds on students' own ideas about science concepts, scientific practices and inquiry, and the phenomenon being investigated.</td><td>Candidate facilitates interactions among students so they can evaluate their own data collection, procedures, interpretations, or evidence-based explanations.</td></tr>
<tr><td colspan="2">LOOK FORs

• Surface level questions (e.g., one word answers)
• Candidate talk (e.g., lecture only)
• Consistent or egregious content inaccuracies</td><td>LOOK FORs

• Questions prompt some higher-order thinking related to subject specific understandings</td><td colspan="2">LOOK FORs:

All from Proficient and…

Question build on student thinking about subject specific understandings

Interactions among students (e.g., Ss respond to and build on peer comment)

Students evaluate their own thinking</td></tr>
<tr><td colspan="5">Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced</td></tr>
</table>

Instruction Rubrics - Rubric 9: Subject-Specific Pedagogy: Analyzing Data

EVIDENCE: Video clips, Instruction commentary prompt 4b

How does the candidate facilitate students' analysis of the data based on scientific inquiry?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr><td>The candidate does not ask students to present or summarize their data and there is no analysis of data.</td><td>Candidate asks students to display data and the candidate takes the primary role in analyzing the data with an inappropriate method and/or major omissions.</td><td>Candidate asks students to display data and the candidate takes the primary role in accurately analyzing data using appropriate methods with no major omissions.</td><td>Candidate asks students to display data and facilitates a data analysis discussion where students demonstrate the ability to find patterns OR inconsistencies within the data.</td><td>Candidate asks students to display data and facilitates a data analysis discussion where students demonstrate the ability to find patterns AND inconsistencies within the data.</td></tr>
<tr><td colspan="2">LOOK FORs:</td><td>LOOK FORs:</td><td colspan="2">LOOK FORs:
All from Proficient and …</td></tr>
<tr><td colspan="5">Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced</td></tr>
</table>

Instruction Rubrics - Rubric 10: Analyzing Teaching Effectiveness

EVIDENCE: Video clips, Instruction commentary prompt 5

How does the candidate use evidence to evaluate and change teaching practice to meet students' varied learning needs?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr><td>Candidate suggests changes unrelated to evidence of student learning.</td><td>Candidate proposes changes that are focused primarily on improving directions for learning tasks or task/behavior management.</td><td>Candidate proposes changes that address students' collective learning needs related to the central focus.

Candidate makes superficial connections to research and/or theory.</td><td>Candidate proposes changes that address individual and collective learning needs related to the central focus.

Candidate makes connections to research and/or theory.</td><td>Level 4 plus:
Candidate justifies changes using principles of research and/or theory.</td></tr>
<tr><td colspan="2">LOOK FORs:
• Proposed changes
o Address candidate's own behavior without reference to student learning
o suggest "more practice" or time to work on similar or identical tasks without revision
o address problems with student behavior and how to "fix" it</td><td>LOOK FORs:
• Proposed changes
o address gaps in whole class learning/understanding
o re-engage students in new, revised or additional tasks
o include surface level discussion of research or theory (e.g., name drop or use a term without connection to own practice)</td><td colspan="2">LOOK FORs:
All from Proficient and…
• Proposed changes
o are concrete, specific and elaborated
o address gaps in student learning for different students in different ways (e.g., modified tasks or different resources/materials, extra scaffolding with teacher or peer)
o are grounded in principles from theory or research (e.g., go beyond name dropping or jargon)</td></tr>
<tr><td colspan="5">Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced</td></tr>
</table>

Assessment Rubrics - Rubric 11: Analysis of Student Learning

EVIDENCE: Assessment commentary 1, evaluation criteria, work samples

How does the candidate analyze evidence of student learning with respect to standards/objectives?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr>
<td>The analysis is superficial or not supported by either student work samples or the summary of student learning.

OR

The evaluation criteria, learning objectives, and/or analysis are not aligned with each other.</td>
<td>The analysis focuses on what students did right OR wrong using evidence from the summary or work samples.</td>
<td>The analysis focuses on what students did right AND wrong and is supported with evidence from the summary and work samples.

Analysis includes some differences in whole class learning.</td>
<td>Analysis uses specific examples from work samples to demonstrate patterns of student learning consistent with the summary.

Patterns are described for whole class.</td>
<td>Analysis uses specific evidence from work samples to demonstrate the connections between quantitative and qualitative patterns of student learning for individuals or groups.</td>
</tr>
<tr>
<td colspan="2">LOOK FORs:
• Lists correct OR incorrect answers
• Claims unsupported by work samples
• No alignment between assessment and objectives</td>
<td>LOOK FORs:
• Lists correct AND incorrect answers
• Lists some areas where whole class excelled or struggled</td>
<td colspan="2">LOOK FORs:
All from Proficient and...
• Describes students' understandings and struggles citing evidence (e.g., As demonstrated in sample 3…)
• Learning trends related to individual or group understandings/misunderstandings (e.g., Scores on essay question lower for ELLs; struggled with taking and supporting</td>
</tr>
<tr>
<td colspan="5">Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced</td>
</tr>
</table>

Assessment Rubrics - Rubric 12: Providing Feedback to Guide Learning

EVIDENCE: Assessment commentary prompt 2a, work samples

What type of feedback does the candidate provide to focus students?

EMERGING PERFORMANCE		PROFICIENT PERFORMANCE	ADVANCED PERFORMANCE	
Feedback is unrelated to the learning objectives OR is inconsistent with the analysis of the student learning. OR Feedback contains significant content inaccuracies.	Feedback addresses only errors OR strengths generally related to the learning objectives. OR Feedback is inconsistently provided to focus students.	Feedback is accurate and primarily focuses on either errors OR strengths related to specific learning objectives, with some attention to the other. Feedback is provided consistently for the focus students.	Feedback is accurate and addresses both strengths AND needs related to specific learning objectives. Feedback is provided consistently for the focus students.	Level 4 plus: Candidate describes how s/he will guide focus students to use feedback to evaluate their own strengths and needs.
LOOK FORs: • General feedback on errors OR strengths (e.g., "Good detail!") • Unequal feedback given (e.g., 1 sample with feedback and 1 sample without) • No relation to objectives or analysis (e.g., feedback on grammar when objective on causes of WWII) • Feedback inaccurate (e.g., numerous or essential items are marked incorrect when correct or vice versa)		LOOK FORs: • Specific feedback connected to objectives (e.g., "As you explain the causes, remember to include key nations involved.") • Feedback emphasizes strengths OR weaknesses with mention of other • Equal feedback given (e.g., same amount and kind across focus students)	LOOK FORs: All from Proficient and… • Balanced specific feedback on strengths AND weaknesses • Guides student self evaluation of strengths and weaknesses (e.g., "I will have students use rubric to evaluate their own draft and discuss results with peer."	
Evidence: Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced				

Assessment Rubrics - Rubric 13: Student Use of Feedback

EVIDENCE: Assessment commentary prompt 2b

How does the candidate provide opportunities for focus students to use the feedback to guide their further learning?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr>
<td>Opportunities for applying feedback are not described.

OR

Candidate provides limited or no feedback to inform student learning.</td>
<td>Candidate provides vague explanation for how focus students will use feedback to complete current or future assignments.</td>
<td>Candidate describes how focus students will use feedback on their strengths and weaknesses to revise their current work, as needed.</td>
<td>Candidate describes how s/he will support focus students to use feedback on their strengths and weaknesses to deepen understandings and skills related to their current work.</td>
<td>Level 4 plus:
Candidate guides focus students to generalize feedback beyond the current work sample.</td>
</tr>
<tr>
<td colspan="2">LOOK FORs:
• Generic discussion for use of feedback (e.g., “to use for upcoming exam”)
• No discussion for use of feedback
• No feedback given on samples</td>
<td>LOOK FORs:
• Explicit discussion for how students use feedback to improve work (e.g., “Use questions I asked to deepen your response by answering them using research sources and adding that information to your essay.”)</td>
<td colspan="2">LOOK FORs:
All from Proficient and…
• Discussion of support for student use of feedback (e.g., one-on-one conferences to use feedback to improve draft)
• Leads to deeper understandings of current or future work (e.g., content of conference focuses on improving content understanding/skills within draft)</td>
</tr>
<tr>
<td colspan="5">Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced</td>
</tr>
</table>

Assessment Rubrics - Rubric 14: Analyzing Students' Language Use and Science Learning

EVIDENCE: Assessment commentary prompt 3, work samples and/or video clips

How does the candidate analyze students' use of language to develop content understanding?

EMERGING PERFORMANCE		PROFICIENT PERFORMANCE	ADVANCED PERFORMANCE	
Candidate identifies language use that is superficially related or unrelated to the language demands (function,[7] vocabulary, and additional demands). OR Candidate does not address students' repeated misuse of vocabulary.	Candidate provides evidence that students use vocabulary associated with the language function.	Candidate explains and provides evidence of students' use of the language function as well as vocabulary OR additional language demand(s).[8]	Candidate explains and provides evidence of students' use of the language function, vocabulary, and additional language demand(s) in ways that develop content understandings.	Level 4 plus: Candidate explains and provides evidence of language use and content learning for students with varied needs.
LOOK FORs: • Lists only vocabulary use • Lists language use that is not connected to identified vocabulary, or other demands (e.g., identifies language use of grammar when demands are about summarizing information)		LOOK FORs: • Lists and explains students' use of vocabulary and related function • List and explains students' use of discourse or syntax	LOOK FORs: All from Proficient and… • Lists and explains vocabulary, function and syntax or discourse used by whole class OR students with varied needs • Language use clearly supports content understandings	
Evidence:				
Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced				

[7] The selected language function is the verb identified in the Planning Commentary Prompt 4a (analyze, explain, interpret, etc.).

[8] These are the additional language demands identified in the Planning Commentary Prompt 4c (vocabulary and/or symbols, plus either syntax or discourse).

Assessment Rubrics - Rubric 15: Using Assessment to Inform Instruction

EVIDENCE: Assessment commentary prompt 4

How does the candidate use the analysis of what students know and are able to do to plan next steps in instruction?

<table>
<tr><th colspan="2">EMERGING PERFORMANCE</th><th>PROFICIENT PERFORMANCE</th><th colspan="2">ADVANCED PERFORMANCE</th></tr>
<tr>
<td>Next steps do not follow from the analysis.
OR
Next steps are not relevant to the standards and learning objectives assessed.
OR
Next steps are not described in sufficient detail to understand them.</td>
<td>Next steps focus on repeating instruction, pacing or classroom management issues.</td>
<td>Next steps propose general support that improves student learning related to:
conceptual understanding,
use of scientific practices during inquiry, OR
evidence-based argument about a scientific phenomenon.
Next steps are loosely connected with principles from research and/or theory.</td>
<td>Next steps provide targeted support to individuals or groups to improve their learning relative to:
conceptual understanding,
use of scientific practices during inquiry, OR
evidence-based argument about a scientific phenomenon.
Next steps are connected with principles from research and/or theory.</td>
<td>Next steps provide targeted support to individuals and groups to improve their learning relative to:
conceptual understanding,
use of scientific practices during inquiry, AND
evidence-based argument about a scientific phenomenon.
Next steps are justified with principles from research and/or theory.</td>
</tr>
<tr>
<td colspan="2">LOOK FORs:
Next steps:
Do not make sense (e.g., students need more support on writing arguments and candidate focuses next steps on vocabulary definitions)
Are not aligned to learning objectives
Present vague information (e.g., “will provide more support for objectives.”)</td>
<td>LOOK FORs:
Next steps generally attend to whole class needs in relation to content (e.g., “use a Venn diagram to support writing of research paper.”)
Discussions of research/theory are surface level</td>
<td colspan="2">LOOK FORs:
All from Proficient and…
Strategic support for individuals AND groups related to subject specific knowledge
Next steps are grounded in research/theory</td>
</tr>
</table>

Evidence:

Evaluation: (Check one): _____Emerging _____ Proficient _____ Advanced