edTPA™



Secondary Science

Understanding Rubric Level Progressions

October 2014

edTPA stems from a twenty-five-year history of developing performance-based assessments of teaching quality and effectiveness. The Teacher Performance Assessment Consortium (Stanford and AACTE) acknowledges the National Board for Professional Teaching Standards, the Interstate Teacher Assessment and Support Consortium, and the Performance Assessment for California Teachers for their pioneering work using discipline-specific portfolio assessments to evaluate teaching quality. This version of the handbook has been developed with thoughtful input from over six hundred teachers and teacher educators representing various national design teams, national subject matter organizations (AAHPERD, ACEI, ACTFL, AMLE, CEC, IRA, NAEYC, NAGC, NCSS, NCTE, NCTM, NSTA), and content validation reviewers. All contributions are recognized and appreciated.

Stanford Center for Assessment, Learning, & Equity

Understanding Rubric Level Progressions
Secondary Science
edTPA
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edTPA portfolio is a collection of authentic artifacts and evidence from a candidate's actual teaching practice. *Understanding Rubric Level Progressions* is a KEY resource that is designed to describe the meaning behind the rubrics. A close read of the following sections will help program faculty and supervisors internalize the criteria and level distinctions for each rubric. This document is intended as a resource for program faculty and supervisors who are supporting candidates with edTPA. Faculty and supervisors are strongly encouraged to share this document with candidates and use it to support their understanding of the rubrics, as well as their development as new professionals. The *Understanding Rubric Level Progressions* is intended to enhance, not replace, the support that candidates receive from programs in their preparation for edTPA.

In the next section, we provide definitions and guidelines for making scoring decisions based on the "preponderance of evidence." The remainder of the document presents the score-level distinctions and other information for each edTPA Task, including:

1) Elaborated explanations for rubric Guiding Questions

2) Definitions of key terms used in rubrics

3) Primary sources of evidence for each rubric

4) Rubric-specific decision rules for multiple criteria in a rubric

5) Automatic 1 criteria

6) Examples that distinguish between levels for each rubric: Level 3, below 3 (Levels 1 and 2), and above 3 (Levels 4 and 5).

Preponderance of Evidence

Decisions about a score level are based on the "preponderance of evidence" provided by candidates and its match to rubric level criteria. The interpretation of each criterion requires the application of professional judgment. The following guidelines are applied when making scoring decisions based on the "preponderance of evidence":

When evidence falls across score points, scorers should use the following criteria while making the scoring decision:

1. A pattern of evidence supporting a particular score level has a heavier weight than isolated evidence in another score level.
2. **Automatic 1 criteria** outweigh all other evidence for the specific guiding question, as they reflect foundational understandings related to particular rubrics. Note that not all criteria for Level 1 are Automatic 1s. Automatic 1s are identified in this document for applicable rubrics.

SECONDARY SCIENCE LEARNING SEGMENT FOCUS:

Candidate's instruction should support students to use science concepts and scientific practices during inquiry to explain a real-world phenomenon.

PLANNING RUBRIC 1: Planning for Scientific Understandings

SCI1: How do the candidate's plans build students' abilities to use science concepts and scientific practices during inquiry to explain a real-world phenomenon?

The Guiding Question addresses how a candidate's plans build a learning segment of three to five lessons around a central focus. Candidates will explain how they plan to organize tasks, activities, and/or materials to align with the central focus and the standards/objectives. The planned learning segment must develop students' use of science concepts and the ability to apply scientific practices through inquiry to develop evidence-based explanations for a real-world phenomenon.

Key Concepts of Rubric:

- *Aligned* – Standards, objectives, instructional strategies and learning tasks are "aligned" when they consistently address the same/similar learning outcomes for students.

Science Terms Central to the edTPA:

- *Scientific practices through inquiry* -- The practices, as defined by the Next Generation of Science Standards, focus on eight key components:
  - Asking questions
  - Developing and using models
  - Planning and carrying out investigations
  - Analyzing and interpreting data
  - Using mathematics and computational thinking
  - Constructing explanations
  - Engaging in argument from evidence
  - Obtaining, evaluating, and communicating information
- *Evidence-based explanation* -- An evidence-based explanation of a phenomenon includes a claim (statement) about the underlying cause using scientific concepts or principle(s), consistent with scientific data.
- *Evidence-based arguments* -- An evidence-based argument is a claim (statement) about the phenomenon justified through the use of scientific data.

Primary Sources of Evidence:

Context Information (for understanding and assessing candidate's decisions)
Planning Commentary **Prompt 1**
Lesson Plans (standards, objectives, instructional strategies and learning tasks, resources)
Key Instructional Materials (to help you understand the plans in more detail)

DECISION RULES	• N/A for this rubric
AUTOMATIC 1	• Significant content inaccuracies • A pattern of misalignment between standards, objectives, learning tasks, and material

Unpacking Rubric Levels	
Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • Plans for instruction are **logically sequenced** to facilitate students' learning. • Plans are presented in a sequence in which **each lesson builds on the previous one**(s). • In addition, the sequencing of the plans supports students' learning by connecting science concepts, a phenomenon, and evidence-based explanations from inquiry during the learning segment. **These connections are explicitly written in the plans or commentary,** and how the connections are made is not left to the determination of the scorer. The explanation may only address a piece of the phenomenon related to the inquiry, and not the complete phenomenon. • Be sure to pay attention to each component of the subject-specific emphasis (learn science concepts, investigate a phenomenon, generate explanations or arguments through engagement in scientific practices through inquiry).
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • Plans for instruction support student learning of facts and engagement in inquiry but **with little or no** planned instruction to guide understanding of how to generate evidence-based explanations of scientific phenomena through inquiry. **What distinguishes a Level 2 from a Level 3:** At Level 2, • the candidate is directing student engagement in an "inquiry" with some opportunities for students to collect, analyze, and interpret data, but opportunities to use evidence to construct or adjust explanations of a phenomenon are at best **fleeting or vague**, e.g., completing sections of a lab report to accept or reject a claim on a basis that is not strongly connected to data from the inquiry. **What distinguishes a Level 1 from a Level 2:** At Level 1, • the candidate is **focused on teaching memorization of facts or following prescribed procedures for an "inquiry"** with no opportunities for students to collect, analyze, and interpret data to adjust their understandings. **Automatic Score of 1 is given when**: • There is a pattern of **significant content inaccuracies** that will lead to student misunderstandings. Content flaws in the plans or instructional materials are significant and systematic, and interfere with student learning • **Standards, objectives, learning tasks, and materials are not aligned** with each other. There is a <u>consistent pattern of misalignment</u> across the plans. If one standard or objective does not align within the learning segment, this level of misalignment is not significant enough for a Level 1.
Above 3	**Evidence that demonstrates performance <u>above Level 3</u>:** • Learning tasks are designed to support students to use both data and science concepts to make an evidence-based argument about a claim by the end of the learning segment. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the candidate supports students in constructing an **evidence-based argument regarding a scientific phenomenon that includes a claim backed by data.** Be sure to pay attention to each component of

	the subject-specific emphasis (learn science concepts, investigate a phenomenon, generate explanations or arguments through engagement in scientific practices through inquiry). • The candidate uses this support **to deepen student understanding of the central focus**. **What distinguishes a Level 5 from a Level 4:** At Level 5, • the candidate supports students in not only constructing but **evaluating the fit of evidence to a scientific argument** and what the students know about the science concepts to revise or refine a claim about the phenomenon.

PLANNING RUBRIC 2: Planning to Support Varied Student Learning Needs

SCI2: 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?

The Guiding Question addresses how the candidate plans to support students in relationship to students' characteristics. This includes using the candidate's understanding of students to develop, choose, or adapt instructional strategies, learning tasks and materials.

Key Concepts of Rubric:

- Planned Supports include instructional strategies, learning tasks and materials, and other resources deliberately designed to facilitate student learning of the central focus.

Primary Sources of Evidence

Context for Learning Information
Planning Commentary **Prompts 2 and 3**
Lesson Plans (instructional strategies and learning tasks, assessments, and resources)
Key Instructional and Assessment Materials

DECISION RULES	• N/A for this rubric
AUTOMATIC 1	• Support according to requirements in IEPs or 504 plans is completely missing. • If there are no students with IEPs or 504 plans, then this criterion is not applicable.

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • Supports are related to the learning objectives and central focus. • Candidate plans supports for students that address the learning needs of the whole class while assisting them in achieving the learning objectives. None of the supports are differentiated for any students other than those required in an IEP or 504 plan. • Candidate addresses at least one of the requirements from IEPs and 504 plans as described in the Context for Learning Information.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** Candidate plans insufficient supports to develop students' learning relative to the identified objectives or the central focus. Evidenced by ONE or more of the following: • candidate does not plan supports for students • planned supports are not closely tied to learning objectives or the central focus • plans do not reflect ANY instructional requirements in IEPs or 504 plans. **What distinguishes a Level 2 from a Level 3:** At Level 2, • plans address at least one of the instructional requirements set forth in IEPs and 504 plans. However, it is not clear that other planned supports will be helpful in supporting students to meet the learning objectives. • The instructional supports would work for almost any learning objective. Therefore, supports are not closely connected to the learning objectives or central focus (e.g., check on students who are usually having trouble, without any specific indication of what the candidate might be checking for). **What distinguishes a Level 1 from a Level 2:** At Level 1, • evidence of intentional support for students' needs as described by the candidate is absent.

	Automatic Score of 1: • If IEP/504 requirements are described in the Context for Learning or commentary but none are included in the planned support, then the rubric is scored as an Automatic Level 1, regardless of other evidence of support for the whole class or groups or individuals in the class. If the candidate describes one or more of the IEP or 504 plan requirements for any student in the lesson plans or commentary, then the score is determined by the Planned Support criterion. **(If there are no students with IEPs or 504 plans, then this criterion is not applicable.)**
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • Plans address specific student needs through supports that will help students meet the learning objectives. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the candidate explains how the supports tied to the learning objectives are intended to meet specific needs of individuals or groups of students with similar needs, in addition to the whole class. Supports should be provided for more than one student--either more than one individual or for a specific group of students with similar needs (e.g., more instruction in a prerequisite skill). **What distinguishes a Level 5 from a Level 4:** At Level 5, • the candidate meets Level 4 AND identifies possible preconceptions, errors, or misconceptions associated with the central focus, and describes specific strategies to identify and respond to them. • If the plans and commentary attend to preconceptions, errors, or misconceptions without also satisfying Level 4 requirements, this is not sufficient evidence for Level 5.

PLANNING RUBRIC 3: Using Knowledge of Students to Inform Teaching and Learning

SCI3: How does the candidate use knowledge of his/her students to justify instructional plans?

The Guiding Question addresses how the candidate justifies the ways in which learning tasks and materials make content meaningful to students, by drawing upon knowledge of individuals or groups, as well as research or theory.

Key Concepts of Rubric:

- *Deficit thinking* is revealed when candidates explain low academic performance based primarily on students' cultural or linguistic backgrounds, the challenges they face outside of school or from lack of family support. When this leads to a pattern of low expectations, not taking responsibility for providing appropriate support, or not acknowledging any student strengths, this is a deficit view.

For the following terms from the rubric, see the handbook glossary:

- *prior academic learning*
- *assets* (personal/cultural/community assets)

Primary Sources of Evidence:
Planning Commentary **Prompts 2 and 3**

DECISION RULES	• Criterion 1 (**primary**): Justification of plans using knowledge of students (prior academic learning and/or personal/cultural/community assets) • Criterion 2: Research and theory connections • Place greater weight or consideration on criterion 1 (justification of plans using knowledge of students).
AUTOMATIC 1	• Deficit view of students and their backgrounds

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at Level 3:** • The candidate's justification of the learning tasks includes explicit connections to what students have already learned or knowledge of student' cultural backgrounds or personal lived experiences/interests. • The candidate refers to research or theory in relation to the plans to support student learning. The connections between the research/theory and the tasks are not clearly made.
Below 3	**Evidence that demonstrates performance below 3:** • There is a limited amount of evidence that the candidate has considered his/her particular class in planning. OR • The candidate justifies the plans through a deficit view of students and their backgrounds. **What distinguishes a Level 2 from a Level 3:** At Level 2, • the candidate's justification of the learning tasks makes some connection with what they know about students' prior academic learning OR personal/cultural/community assets. These connections are not strong, but are instead vague or unelaborated, or involve a listing of what candidates know about their students in terms of prior knowledge or background without making a direct connection to how that is related to planning.

	What distinguishes a Level 1 from a Level 2: At Level 1, • there is no evidence that the candidate uses knowledge of students to plan. **Automatic Score of 1 is given when**: • Candidate's justification of learning tasks represents a deficit view of students and their backgrounds.
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • The candidate's justification not only uses knowledge of students – as both academic learners AND as individuals who bring in personal, cultural, or community assets – but also uses research or theory to inform planning. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the **evidence includes a balance of** specific examples from students' prior academic learning AND knowledge of students' personal/cultural/community assets, and explains how the plans reflect this knowledge. The explanation needs to include explicit connections between the learning tasks and the examples provided. • The candidate explains how research or theory informed the selection or design of at least one learning task or the way in which it was implemented. The connection between the research or theory and the learning task(s) must be explicit. **What distinguishes a Level 5 from a Level 4:** At Level 5, • the candidate meets Level 4 AND explains how principles of research or theory support or **set a foundation for** their planning decisions. • The justifications are explicit, well-articulated, and demonstrate a thorough understanding of the research/theory principles that are clearly reflected in the plans.

PLANNING RUBRIC 4: Identifying and Supporting Language Demands

SCI4: How does the candidate identify and support language demands associated with a key science learning task?

The Guiding Question examines the specific language demands identified in the learning segment and identifies support for the use of this language.

Key Concepts of Rubric:

Use the definitions below to identify evidence for each language demand while scoring.

- **language demands --** Specific ways that academic language (vocabulary, functions, discourse, syntax) is used by students to participate in learning tasks through reading, writing, listening, and/or speaking to demonstrate their disciplinary understanding.
- **language functions --** The content and language focus of the learning task represented by the active verbs within the learning outcomes. Common language functions in science include **interpreting** written investigative procedures, diagrams, figures, tables, graphs, and dense authoritative text; **writing or presenting** causal explanations; **explaining** models of scientific phenomena; **predicting** from models and data from scientific inquiries; **comparing** based on common attributes; **summarizing** scientific data from inquiries; **justifying** conclusions with scientific evidence; **evaluating** data and investigative procedures; **classifying** based on attributes; **describing** processes and procedures; **drawing conclusions** based on investigative results; and so on.
- **vocabulary --** Words and phrases that are used within disciplines including: (1) words and phrases with subject-specific meanings that differ from meanings used in everyday life (e.g., table); (2) general academic vocabulary used across disciplines (e.g., compare, analyze, evaluate); and (3) subject-specific words defined for use in the discipline.
- **discourse --** Discourse includes the structures of written and oral language, as well as how members of the discipline talk, write, and participate in knowledge construction. Discipline-specific discourse has distinctive features or ways of structuring oral or written language (text structures) that provide useful ways for the content to be communicated. In science, language structures include symbolic representations such as chemical equations (which can be translated into words), graphic and tabular representations (which are shorthand language for complex sets of data), lists (e.g., materials lists), and narrative (e.g., analysis and conclusions sections in a lab report). If the function is to draw conclusions, then appropriate structures could include charts of investigative results or sentence starters to structure an analysis such as "The results of the investigation show…," "This data suggests that…."
- **syntax --** The set of conventions for organizing symbols, words, and phrases together into structures (e.g., sentences, graphs, tables).

Primary Sources of Evidence:
Planning Commentary **Prompt 4a-d**
Lesson Plans
Instructional Materials

DECISION RULES	• N/A
AUTOMATIC 1	• None

Unpacking Rubric Levels	
Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • Some support is described, though not in specific detail, for students' application of both terms/symbols and one or more of the additional language demands identified (function, syntax, or discourse). Examples of general language supports include describing and defining the function, modeling syntax or discourse, providing an example with little explanation, questions and answers about a language demand, whole group discussion of a language demand, providing pictures to illustrate vocabulary. Language support must go beyond opportunities to use the targeted language in the learning segment.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • The candidate has a superficial view of academic language, primarily focusing on isolated vocabulary and/or symbols with little or no attention to how these are used in the learning task. **What distinguishes a Level 2 from a Level 3**: At Level 2, • the primary focus of language demand is on the meaning of specific terminology (vocabulary) and/or symbols, with little attention to other language demands (function, syntax, discourse). • Support may consist of sharing or writing definitions, discussing vocabulary or symbols, or showing pictures of vocabulary, but does not go beyond vocabulary or symbols. **What distinguishes a Level 1 from a Level 2**: At Level 1, • there is a mismatch between and among the language demand(s), language function, task, and/or the language supports identified.
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • The supports specifically address the language function, vocabulary and/or symbols, and at least one other language demand (syntax, discourse) in the context of the chosen task. **What distinguishes a Level 4 from a Level 3**: At Level 4, • the candidate plans specific language supports in relation to terminology/symbols, the language function, and at least one other language demand (discourse, syntax). • Supports are focused on specific language demands, such as sentence starters (syntax or function), modeling how to construct an argument or explanation paragraph (function), graphic organizers tailored to organizing text (discourse or function), identifying critical elements of a language function using an example, more in-depth exploration of vocabulary development (definition, antonym, synonym, contextualized meanings, multiple meanings or contrastive uses for home and school). **What distinguishes a Level 5 from a Level 4:** At Level 5, the candidate meets all of Level 4 AND • the candidate explains how the language supports are either designed or differentiated to meet the needs of students with differing language needs.

PLANNING RUBRIC 5: Planning Assessments to Monitor and Support Student Learning

SCI5: How are the informal and formal assessments selected or designed to monitor students' progress toward using science concepts and scientific practices during inquiry to explain a real-world phenomenon?

The Guiding Question addresses the alignment of the assessments to the standards and objectives and the extent to which assessments provide multiple forms of evidence to monitor student progress throughout the learning segment. It also addresses required adaptations from IEPs or 504 plans. The array of assessments should provide evidence of students' understanding of science concepts, phenomena, and the application of scientific practices during scientific inquiry.

Key Concepts of Rubric:

- None defined for this rubric

Primary Sources of Evidence:

Context for Learning Information (required supports, modifications, or accommodations for assessments)
Planning Commentary **Prompts 2 and 5**
Lesson Plans (assessments)
Assessment Materials

DECISIONRULES	• N/A for this rubric
AUTOMATIC 1	• None of the assessment adaptations required by IEPs or 504 plans are made. (If there are no students with IEPs or 504 plans, then this criterion is not applicable.)

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • The planned assessments provide evidence of students' understanding of science concepts, phenomena, AND the application of scientific practices during scientific inquiry <u>at various points</u> within the learning segment. The assessments must provide evidence of all three (science concepts, a phenomenon, and application of scientific practices during scientific inquiry).
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • The planned assessments will yield insufficient evidence to monitor students' understanding of science concepts, phenomena, and the use of scientific practices during scientific inquiry (e.g., a single summative assessment). **What distinguishes a Level 2 from a Level 3:** At Level 2, • assessments will produce evidence of student learning, but evidence is limited. Examples of limited assessments include a single assessment or assessments for only procedures or conceptual understanding and not the other areas. • Although assessments may provide some evidence of student learning, they do not monitor all areas of learning across the learning segment. **What distinguishes a Level 1 from a Level 2**: At Level 1, • the assessments only focus on memorization of facts or following procedures without providing evidence of conceptual understanding or application of scientific inquiry skills.

	Automatic Score of 1: • there is NO attention to ANY <u>assessment-related</u> IEP/504 plan requirements (e.g., more time; a scribe for written assignments), the score of 1 is applied; otherwise the evidence for the other criteria will determine the score. **(If there are no students with IEPs or 504 plans, then this criterion is not applicable.)**
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • the array of assessments provides consistent evidence of students' understanding of science concepts, phenomena, AND the application of scientific practices during scientific inquiry. • Assessment evidence will allow the candidate to determine students' progress toward developing an understanding of science concepts and the use of scientific practices during inquiry (e.g., planned targeted, formative assessments). **What distinguishes a Level 4 from a Level 3**: At Level 4, • there are multiple forms of evidence, not just the same kind of evidence collected at different points in time or in different settings, to monitor student students' understanding of science concepts, phenomena, AND the application of scientific practices during scientific inquiry for the central focus. "Multiple forms of evidence" means that different types of evidence are used—e.g., written explanations, drawings or diagrams representing student understanding of a phenomenon, data-based laboratory reports with conclusions, applications of knowledge to novel situations—and not that there is only one type of evidence on homework, exit slips, and the final test. • The array of assessments provides evidence to track student progress toward developing the understanding of science concepts and the phenomenon and use of scientific practices during inquiry defined by the standards and learning objectives. • This evidence is collected for all three areas (science concepts, a phenomenon, and the application of scientific practices during inquiry) in every lesson OR the assessments correspond to a plan for the learning segment that builds understandings in one or more areas and uses that understanding to address other areas. **What distinguishes a Level 5 from a Level 4:** At Level 5, • the candidate meets Level 4 AND describes how assessments are targeted and explicit in design to allow individuals or groups with specific needs to demonstrate their learning without oversimplifying the content. • Strategic design of assessments goes beyond, for example, allowing extra time to complete an assignment or adding a challenge question.

INSTRUCTION RUBRIC 6: LEARNING ENVIRONMENT

SCI6: How does the candidate demonstrate a safe and respectful learning environment that supports students' engagement in learning?

The Guiding Question addresses the type of learning environment that the candidate establishes and the degree to which it fosters respectful interactions between the candidate and students, and among students.

Key Concepts of Rubric:

- *Respect* -- A positive feeling of esteem or deference for a person and specific actions and conduct representative of that esteem. Respect can be a specific feeling of regard for the actual qualities of the one respected. It can also be conduct in accord with a specific ethic of respect. Rude conduct is usually considered to indicate a lack of respect, ***disrespect***, whereas actions that honor somebody or something indicate respect. Note that respectful actions and conduct are culturally defined and may be context dependent. Note that indicators of respect may differ across cultures.

- *Rapport* -- A close and harmonious relationship in which the people or groups understand each other's feelings or ideas and communicate well.

For the following term from the rubric, see the handbook glossary:

- *Learning environment*

Primary Sources of Evidence:
Video clips
Instruction Commentary **Prompt 2**

Note that for the Instruction Task, the commentary is intended to provide context for interpreting what is shown in the video. Candidates sometimes describe events that do not appear in the video or conflict with scenes from the video – **such statements should not override evidence depicted in the video.**

DECISION RULES	• N/A
AUTOMATIC 1	• None
Unpacking Rubric Levels	
Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** In the clips: • The candidate's interactions with students are respectful, demonstrate rapport (evidence of relationship between teacher and students and/or ease of interaction that goes back and forth based on relevance or engaged conversation), and students communicate easily with the candidate. • The environment described in the commentary, and verified with video evidence, shows that the candidate facilitates a positive environment wherein students are willing to answer questions and work together and where criticism of responses does not inhibit discussion. • There is evidence of mutual respect among students. Examples include attentive listening while other students speak, respectful attention to another student's idea (even if disagreeing), working together with a partner or group to accomplish tasks.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** The clips: • Do not exhibit evidence of positive relationships and interactions between teacher and students.

	• Reveal a focus on classroom management and maintaining student behavior and routines rather than engaging students in learning. **What distinguishes a Level 2 from a Level 3**: At Level 2, • although clips reveal the candidate's respectful interactions with students, there is an emphasis on candidate's rigid control of student behaviors, discussions, and other activities in ways that limit and do not support learning. **What distinguishes a Level 1 from a Level 2**: At Level 1, there are **two ways** that evidence is scored: 1. The clips reveal evidence of candidate-student or student-student interactions that discourage student contributions, disparage the student(s), or take away from learning. 2. The classroom management is so weak that the candidate is not able to, or does not successfully, redirect students, or the students themselves find it difficult to engage in learning tasks because of disruptive behavior.
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** The clips: • Reveal a positive learning environment that includes tasks/discussions that challenge student thinking and encourage respectful student-student interaction. **What distinguishes a Level 4 from a Level 3**: At Level 4, • the learning environment supports learning tasks that appropriately challenge students by promoting higher-order thinking or application to develop new learning. There must be evidence that the environment is challenging for students. Examples include: students cannot answer immediately, but need to think to respond; the candidate asks higher-order thinking questions; students are trying to apply their initial learning to another context. • The learning environment encourages and supports mutual respect among students, e.g., to discuss ideas respectfully with each other. **What distinguishes a Level 5 from a Level 4:** At Level 5, • the learning environment encourages students to express, debate, and evaluate differing perspectives on content with each other. Perspectives could be from curricular sources, students' ideas, and/or lived experiences.

INSTRUCTION RUBRIC 7: Engaging Students in Learning

SCI7: How does the candidate actively engage students in analyzing and interpreting scientific data to construct evidence-based arguments about a real-world phenomenon?

The Guiding Question addresses how the candidate provides video evidence of engaging students in meaningful tasks and discussions to develop their abilities to construct scientific arguments based on science concepts and data.

Key Concepts of Rubric:

Science-specific term:

- *Evidence-based argument*: An evidence-based argument is a claim (statement) about the phenomenon justified through the use of scientific data.

For the following terms from the rubric, see the handbook glossary:

- *Engaging students in learning*
- *Assets* (personal/cultural/community)

Primary Sources of Evidence:

Video Clips

Instruction Commentary **Prompt 3**

Note that for the Instruction Task, the commentary is intended to provide context for interpreting what is shown in the video. Candidates sometimes describe events that do not appear in the video or conflict with scenes from the video – **such statements should not override evidence depicted in the video.**

DECISION RULES	• Criterion 1 (**primary**): Engagement in learning tasks • Criterion 2: Connections between students' academic learning and/or personal/cultural/community assets and new learning • Place greater weight or consideration on the criterion 1 (engagement in learning tasks).
AUTOMATIC 1	• None

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • The clips show that the students are engaged in learning tasks that focus on analyzing and interpreting scientific data or using relevant science concepts to construct or engage in an evidence-based argument. Note that the claim in the argument may or may not be accurate, but should be consistent with the data from the inquiry and/or with student understanding of relevant science concepts. • Students **refer to data or** relevant **science concepts** in connection with a scientific argument, but the references are **not used to support** the argument. The connections between the data or concepts and the claim are implicit. • The clip shows the candidate **making connections** to students' prior academic learning to help them develop the new content or skills.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • Students are participating in tasks that do not involve either a scientific argument or references to data from the inquiry**.**

	What distinguishes a Level 2 from a Level 3: At Level 2, • students are engaged in tasks to construct or engage in scientific argument, but are not using data to support their claims due to the structure of the learning task or the way in which it is implemented. • In addition, the candidate may refer to students' learning from prior units, but the references are indirect or unclear and do not facilitate new learning. **What distinguishes a Level 1 from a Level 2**: At Level 1, • there is no evidence in the learning tasks seen in the video clips of any attempt to construct or engage in scientific argument. • In addition, either the candidate is not using students' prior academic learning and personal/cultural/community experiences to build new learning OR the links do not make sense to the students, so they are unable to use them.
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • The learning tasks as seen in the clip are structured to engage students to explain how data and relevant science concepts support a claim about the phenomenon. Note that the claim in the argument may or may not be accurate, but should be consistent with the data from the inquiry and with student understanding of relevant science concepts. • Connections between students' prior academic learning and personal/cultural/community experiences – in and out of school – support the new learning. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the learning tasks in the clips include structures or scaffolding that promote the learning of how to engage in critiquing a scientific argument using data from the inquiry and relevant science concepts. • In addition, the candidate draws upon not only prior academic learning, but also students' knowledge and experience from outside school to develop new learning. **What distinguishes a Level 5 from a Level 4:** At Level 5, • candidate supports students in constructing and **evaluating a scientific argument** against data and concepts to revise or refine it. • In addition, the candidate encourages students to connect and use their prior academic and personal/cultural/community knowledge and experiences to support new learning.

INSTRUCTION RUBRIC 8: Deepening Student Learning

SCI8: How does the candidate elicit responses to promote thinking and understanding of science concepts and abilities to apply scientific practices during scientific inquiry?

The Guiding Question addresses how, in the video clips, the candidate brings forth and builds on student responses to guide learning; this can occur during whole class discussions, small group discussions, or consultations with individual students.

Key Concepts of Rubric:

- *Evidence-based explanation*: An evidence-based explanation of a phenomenon includes a claim (statement) about the underlying cause using scientific concepts or principle(s), consistent with scientific data.
- *Significant content inaccuracies*

Primary Sources of Evidence:
Video clips
Instruction Commentary **Prompt 4a**

Note that for the Instruction Task, the commentary is intended to provide context for interpreting what is shown in the video. Candidates sometimes describe events that do not appear in the video or conflict with scenes from the video – **such statements should not override evidence depicted in the video.**

DECISION RULES	• N/A for this rubric
AUTOMATIC 1	• Pattern of **significant content inaccuracies** or a significant error in content that is core to the central focus or a key standard for the learning segment

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • The candidate prompts students to offer responses that require thinking related to science concepts, scientific practices and inquiry, and the phenomenon being investigated, e.g., by using "how" and "why" questions. Some instruction may be characterized by initial questions focusing on facts to lay a basis for later higher-order questions in the clip.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • In the clips, classroom interactions provide students with limited or no opportunities to think and learn. **What distinguishes a Level 2 from a Level 1:** At Level 2, • the candidate asks questions that elicit right/wrong or yes/no answers and do little to encourage students to think about the content being taught. **What distinguishes a Level 1 from a Level 2**: At Level 1, • there are few opportunities shown in the clips that students were able to express ideas. **Automatic Score of 1 is given when**: • There is a pattern of **significant content inaccuracies** that will lead to student misunderstandings. • The candidate makes a significant error in content (e.g., introducing an inaccurate definition of a central concept before students work independently) that is core to the central focus or a key standard for the learning segment.

Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • In the clips, the candidate uses student ideas and thinking to develop students' science thinking or their abilities to evaluate their own thoughts about science concepts, scientific inquiry, or the phenomenon. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the candidate follows up on student responses to encourage the student or his/her peers to explore or build on the ideas expressed. • The candidate uses this strategy to develop students' understanding of science concepts, scientific inquiry, or the phenomenon. • Examples of "building on student responses" includes referring to a previous student response in developing a point or an argument; calling on the student to elaborate on what s/he said; posing questions to guide a student discussion; soliciting student examples and asking another student to identify what they have in common; asking a student to summarize a lengthy discussion or rambling explanation; and asking another student to respond to a student comment or answer a question posed by a student to move instruction forward. **What distinguishes a Level 5 from a Level 4:** At Level 5, • there is evidence in the clips that the candidate structures and supports student-student conversations and interactions that facilitate students' ability to evaluate and self-monitor their own data collection, procedures, interpretations, or evidence-based explanations.

INSTRUCTION RUBRIC 9: Subject-Specific Pedagogy: Analyzing Data

SCI9: How does the candidate facilitate students' analysis of the data based on scientific inquiry?

The Guiding Question addresses how the candidate guides students in examining and drawing conclusions about the data collected.

Key Concepts of Rubric:

- N/A

Primary Sources of Evidence:
Video Clips
Instruction Commentary **Prompt 4b**

Note that for the Instruction Task, the commentary is intended to provide context for interpreting what is shown in the video. Candidates sometimes describe events that do not appear in the video or conflict with scenes from the video – **such statements should not override evidence depicted in the video.**

DECISION RULES	• N/A for this rubric
AUTOMATIC 1	• None

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • In the clips, the candidate takes the lead in analyzing data display(s) from the inquiry, using appropriate scientific practices without omitting important patterns or inconsistencies in the data.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • In the clips, either there is no analysis of data or the candidate does not address problems with methods of analysis or omissions of important patterns or inconsistencies in the data. W**hat distinguishes a Level 2 from a Level 3:** At Level 2, • the candidate does not address problems with methods of analysis or omissions of important patterns or inconsistencies in the data. **What distinguishes a Level 1 from a Level 2**: At Level 1, • students do not present or summarize data and there is essentially no data analysis.
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • In the clips, the candidate supports the students in an analysis that includes **looking for patterns and inconsistencies in the data**. **What distinguishes a Level 4 from a Level 3:** At Level 4, • in the clips, the candidate supports the students in an analysis that includes **looking for either patterns or inconsistencies in the data**. **What distinguishes a Level 5 from a Level 4:** At Level 5, • in the clips, the candidate supports the students in an analysis that includes looking for patterns **as well as** inconsistencies in the data.

INSTRUCTION RUBRIC 10: Analyzing Teaching Effectiveness

SCI10: How does the candidate use evidence to evaluate and change teaching practice to meet students' varied learning needs?

The Guiding Question addresses how the candidate examines the teaching and learning in the video clips and proposes what s/he could have done differently to better support the needs of diverse students. The candidate justifies the changes based on student needs and references to research and/or theory.

Key Concepts of Rubric:
N/A

Primary Sources of Evidence
Video Clips (for evidence of student learning)
Instruction Commentary **Prompt 5**

DECISION RULES	• Criterion 1 (**primary**): Proposed changes • Criterion 2: Connections to research/theory • Place greater weight or consideration on criterion 1 (proposed changes).
AUTOMATIC 1	• None

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • The proposed changes in teaching practice relate to the central focus and address address specific learning needs of the whole class from lessons that were depicted in the video clips. Proposed changes noted by the candidate should be related to the lessons that are seen or referenced in the clips, but do not need to be exclusively from what is seen in the clips alone. This means that since only portions of the lessons implemented will be captured by the clips, candidates can suggest changes to any part of the lesson(s) referenced in the clips, even if those portions of the lesson(s) are not captured in the clips. • The candidate refers to research or theory in relation to the plans to support student learning. The connections between the research/theory and the tasks are not clearly made.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • The changes proposed by the candidate are not directly related to student learning. **What distinguishes a Level 2 from a Level 3:** At Level 2, • the changes address improvements in teaching practice that mainly focus on how the candidate structures or organizes learning tasks, with a superficial connection to student learning. There is little detail on the changes in relation to either the central focus or the specific learning that is the focus of the video clips. Examples include asking additional higher-order questions without providing examples, improving directions, including more group work without indicating how the group work will address specific learning needs. • If a candidate's proposed changes have nothing to do with the central focus, this rubric cannot be scored beyond a Level 2. **What distinguishes a Level 1 from a Level 2**: At Level 1, • the changes are not supported by evidence of student learning seen in the clips.

Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • The proposed changes relate to the central focus and address individual and collective needs that were within the lessons seen in the video clips. • The changes in teaching practice are supported by research and/or theory. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the changes proposed are clearly related to needs of individuals and groups that were seen in the video clips. • The candidate explains how research or theory is related to the changes proposed. Candidates may cite research or theory in their commentary, or refer to the ideas and principles from the research; either connection is acceptable, as long as they clearly connect the research/theory to the proposed changes. **What distinguishes a Level 5 from a Level 4:** At Level 5, • the candidate meets Level 4 AND explains how principles of research or theory **support or frame the proposed changes**. The justifications are explicit, well-articulated, and demonstrate a thorough understanding of the research/theory principles that are clearly reflected in the explanation of the changes.

ASSESSMENT RUBRIC 11: Analysis of Student Learning

SCI11: How does the candidate analyze evidence of student learning related to conceptual understanding, the use of scientific practices during inquiry, and evidence-based argument about a scientific phenomenon?

The Guiding Question addresses the candidate's analysis of student work to identify patterns of learning across the class.

Key Concepts of Rubric:

- *Aligned* – Evaluation criteria, learning objectives and analysis are aligned with each other.
- *Evaluation criteria* -- Evaluation criteria should indicate differences in level of performance, e.g., a rubric, a checklist of desired attributes, points assigned to different parts of the assessment. Summative grades are not evaluation criteria. Evaluation criteria must be relevant to the learning objectives, though they may also include attention to other desired features of the assessment response, e.g., neatness, spelling.

For the following term from the rubric, see the handbook glossary:

- *Patterns of learning*

Primary Sources of Evidence:
Evaluation criteria (either as an attachment or described within the commentary)

Student work samples

Assessment Commentary **Prompt 1**

DECISION RULES	• N/A for this rubric
AUTOMATIC 1	• Significant misalignment between evaluation criteria, learning objectives, and/or analysis

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • The analysis is an accurate listing of what students did correctly and incorrectly, and is aligned with the summary. • Some general differences in learning across the class are identified.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • The analysis is superficial (e.g., primarily irrelevant global statements) or focuses only right or wrong answers. • The analysis is contradicted by the work sample evidence. • The analysis is based on an inconsistent alignment with evaluation criteria and/or standards/objectives. **What distinguishes a Level 2 from a Level 3:** At Level 2, • although aligned with the summary, the analysis presents an incomplete picture of student learning by only addressing either successes or errors. **What distinguishes a Level 1 from a Level 2:** There are **two ways** that evidence is scored at Level 1: 1. The analysis is superficial because it ignores important evidence from the work samples, focusing on trivial aspects. 2. The conclusions in the analysis are not supported by the work samples or the summary of learning.

	Automatic Score of 1 is given when: • There is a significant lack of alignment between evaluation criteria, learning objectives, and/or analysis. A lack of alignment can be caused by a lack of relevant criteria to evaluate student performance on the learning objectives.
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** The analysis: • Identifies patterns of learning (quantitative and qualitative) that summarize what students know, are able to do, and still need to learn. • Describes patterns for the whole class, groups, or individuals. • Is supported with evidence from the work samples and is consistent with the summary. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the analysis describes patterns across the class in terms of what students know and are able to do and where they need to improve. • The analysis goes beyond a listing of students' successes and errors, to an explanation of student understanding in relation to their performance on the identified assessment. An exhaustive list of what students did right and wrong, or the % of students with correct or incorrect responses, should be scored at Level 3, as that does not constitute a pattern of student learning. A pattern of student learning goes beyond these quantitative differences to identify underlying content understandings, misunderstandings, or partial understandings that are contributing to the quantitative differences. • Specific examples from work samples are used to demonstrate the whole class patterns. **What distinguishes a Level 5 from a Level 4:** At Level 5, • the candidate uses specific evidence from work samples to demonstrate qualitative patterns of understanding. The analysis uses these qualitative patterns to interpret the range of similar correct or incorrect responses for individuals or groups (quantitative patterns), and to determine elements of what students learned and what would be most productive to work on. The qualitative patterns may include struggles, partial understandings, and/or attempts at solution.

ASSESSMENT RUBRIC 12: Providing Feedback to Guide Learning

SCI12: What type of feedback does the candidate provide to focus students?

The Guiding Question addresses the evidence of feedback provided to the focus students. Feedback may be written on the three student work samples or provided in a video/audio format. The feedback should identify what students are doing well and what needs to improve in relation to the learning objectives.

Key Concepts of Rubric:

- *Significant content inaccuracies* – see Automatic 1 explanation
- *Developmentally inappropriate feedback* – Feedback addressing concepts, skills, or procedures well above or below the content assessed (without clearly identified need) OR feedback that is not appropriate for the developmental level of the student (e.g., lengthy written explanations for English learners or feedback to a student with an explanation that references a concept later in the curriculum).

Primary Sources of Evidence:

Student work samples

Evidence of written or oral feedback

Assessment Commentary **Prompts 1a, 2a-b**

DECISION RULES	N/A
AUTOMATIC 1	• No evidence of feedback for one or more focus students

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • The feedback is specific enough to assist the focus students in understanding specific strengths OR needs for improvement. The candidate MUST provide students with qualitative feedback about their performance that is aligned with objectives. Checkmarks, points deducted, grades, or scores are not enough to meet Level 3, even if they distinguish errors from correct responses.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • Evidence of feedback is general, unrelated to the assessed learning objectives, developmentally inappropriate, inaccurate, or missing for one or more students. **What distinguishes a Level 2 from a Level 3:** At Level 2: • Feedback is related to the learning objectives, but is too vague to assist the focus students in understanding specific strengths or needs for improvement. **What distinguishes a Level 1 from a Level 2:** There are **two ways** that evidence is scored at Level 1: • Feedback is not related to the learning objectives. • Feedback is not developmentally appropriate. **Automatic Score of 1 is given when**: • Feedback includes content inaccuracies that will misdirect the student(s). • There is no evidence of feedback for one or more focus students.

Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • Feedback is specific, accurate, related to assessed learning objectives, and addresses students' strengths AND needs. **What distinguishes a Level 4 from a Level 3:** At Level 4, • Accurate, specific feedback addresses both strengths and needs. **What distinguishes a Level 5 from a Level 4:** At Level 5, • candidate meets Level 4 AND describes how s/he will help students use feedback to monitor their own learning.

ASSESSMENT RUBRIC 13: Student Use of Feedback

SCI13: How does the candidate provide opportunities for focus students to use the feedback to guide their further learning?

The Guiding Question addresses how the candidate explains how they expect focus students to use feedback in order to improve their learning.

Key Concepts of Rubric:
N/A

Primary Sources of Evidence:
Evidence of feedback (written, audio/video)

Assessment Commentary **Prompt 2c**

DECISION RULES	• N/A for this rubric
AUTOMATIC 1	• None

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance at <u>Level 3</u>:** • Candidate uses specific points of feedback given to the focus students and describes how these students can use and connect the feedback to improve either current or future work related to the assessed learning objectives.
Below 3	**Evidence that demonstrates performance <u>below 3</u>**: • Opportunities for applying feedback are superficially described or absent. **What distinguishes a Level 2 from a Level 3:** At Level 2, • the description of how focus students will use feedback is very general or superficial. Details about <u>how</u> the students will apply the feedback are missing. **What distinguishes a Level 1 from a Level 2:** At Level 1, • Opportunities for applying feedback are not described **OR** • there is NO evidence of feedback for Rubric 12 for one or more students
Above 3	**Evidence that demonstrates performance <u>above 3</u>**: • Support for students to apply feedback is described in enough detail to understand how students will develop in areas identified for growth and/or continue to deepen areas of strength. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the candidate describes planned or implemented support for students to apply feedback on strengths and weaknesses to further develop their learning in relation to the learning objectives. This can be corrections of misunderstandings or partial understandings or extensions of learning related to the learning objectives. **What distinguishes a Level 5 from a Level 4:** At Level 5, • the candidate meets Level 4 AND describes planned or implemented support for students to apply

	feedback in ways that will prepare or guide them during future learning opportunities in different contexts or topics.

ASSESSMENT RUBRIC 14: Analyzing Students' Language Use and Science Learning

SCI14: How does the candidate analyze students' use of language to develop content understanding?

The Guiding Question addresses how the candidate explains the opportunities students had to use the academic language associated with the identified language function. These opportunities should support understanding of the central focus and develop science understanding.

Key Concepts of Rubric:

- **language demands --** Specific ways that academic language (vocabulary, functions, discourse, syntax) is used by students to participate in learning tasks through reading, writing, listening, and/or speaking to demonstrate their disciplinary understanding.
- **language functions --** The content and language focus of the learning task represented by the active verbs within the learning outcomes. Common language functions in science include **interpreting** written investigative procedures, diagrams, figures, tables, graphs, and dense authoritative text; **writing or presenting** causal explanations; **explaining** models of scientific phenomena; **predicting** from models and data from scientific inquiries; **comparing** based on common attributes; **summarizing** scientific data from inquiries; **justifying** conclusions with scientific evidence; **evaluating** data and investigative procedures; **classifying** based on attributes; **describing** processes and procedures; **drawing conclusions** based on investigative results; and so on.
- **vocabulary --** Words and phrases that are used within disciplines including: (1) words and phrases with subject-specific meanings that differ from meanings used in everyday life (e.g., table); (2) general academic vocabulary used across disciplines (e.g., compare, analyze, evaluate); and (3) subject-specific words defined for use in the discipline.
- **discourse --** Discourse includes the structures of written and oral language, as well as how members of the discipline talk, write, and participate in knowledge construction. Discipline-specific discourse has distinctive features or ways of structuring oral or written language (text structures) that provide useful ways for the content to be communicated. In science, language structures include symbolic representations such as chemical equations (which can be translated into words), graphic and tabular representations (which are shorthand language for complex sets of data), lists (e.g., materials lists), and narrative (e.g., analysis and conclusions sections in a lab report). If the function is to draw conclusions, then appropriate structures could include charts of investigative results or sentence starters to structure an analysis such as "The results of the investigation show…," "This data suggests that…."
- **syntax --** The set of conventions for organizing symbols, words, and phrases together into structures (e.g., sentences, graphs, tables).

Primary Sources of Evidence:

Assessment Commentary **Prompt 3**

Student work samples and/or video evidence

DECISION RULES	• N/A for this rubric
AUTOMATIC 1	• Overlooking students' significant repeated misuse of vocabulary • Description or explanation of language use is not consistent with the evidence submitted.

Unpacking Rubric Levels	
Level 3	**Evidence that demonstrates performance <u>at Level 3</u>:** • The candidate explains and identifies evidence that the students used or attempted to use the identified language function AND use of vocabulary (and/or symbols) or an additional language demand (syntax and/or discourse). It is not sufficient for the candidate to point to the artifact and make a general statement that, for example, "As seen in the work samples, the student used the vocabulary as they analyzed data." The candidate must <u>explain</u> how the students used the identified language, e.g., "Students 1 and 2 used the vocabulary and also explicitly incorporated both data and science concepts (the two components of analysis identified) in their analyses. Student 3 used a mixture of vocabulary and everyday language in the analysis."
Below 3	**Evidence that demonstrates performance <u>below 3</u>**: • The candidate's identification of student's language use is inappropriate or limited to vocabulary. • Students' repeated misuse of vocabulary goes unaddressed by the candidate. **What distinguishes a Level 2 from a Level 3:** At Level 2, • the candidate's description of students' language use is limited to vocabulary that is associated with the language function. This can include a failure to use targeted vocabulary, attempts to use it, or actual use. The candidate does not explain how students' use of the vocabulary is related to learning or the language function. **What distinguishes a Level 1 from a Level 2:** At Level 1, • the candidate identifies language use that is unrelated or not clearly related to the identified language demands (function, vocabulary and/or symbols, syntax, discourse). **Automatic Score of 1 is given when**: • Candidate does not address students' significant repeated misuse of vocabulary. • Candidate's description or explanation of language use is not consistent with the evidence provided.
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • Candidate identifies and explains specific evidence of student use of the language function and vocabulary (and/or symbols) along with an additional language demand (syntax or discourse). • Students use the language in ways that demonstrate their content understandings. • Candidate explains and provides evidence of language use and content learning for students with distinct language needs. **What distinguishes a Level 4 from a Level 3:** At Level 4, • the candidate identifies and explains evidence that students are able to use the language function

	AND associated language demands (vocabulary and/or symbols plus syntax and/or discourse). The explanation uses specific evidence from the video or work sample. The discussion of student language use demonstrates how this use develops content understandings. **What distinguishes a Level 5 from a Level 4:** At Level 5, • the candidate meets Level 4 AND explains and provides evidence that students with distinct language needs are using the language for content learning.

ASSESSMENT RUBRIC 15: Using Assessment to Inform Instruction

SCI15: How does the candidate use the analysis of what students know and are able to do to plan next steps in instruction?

The Guiding Question addresses how the candidate uses conclusions from the analysis of student work and research or theory to propose the next steps of instruction. Next steps should be related to the standards/objectives assessed and based on the assessment that was analyzed. They should also address the whole class, groups with similar needs, and/or individual students.

Key Concepts of Rubric:
N/A

Primary Sources of Evidence:
Student work samples

Evidence of oral or written feedback

Assessment Commentary **Prompts 1 and 4**

DECISION RULES	• Criterion 1 (**primary**): Next steps for instruction • Criterion 2: Connections to research/theory • Place greater weight or consideration on criterion 1 (next steps for instruction).
AUTOMATIC 1	• None

Unpacking Rubric Levels

Level 3	**Evidence that demonstrates performance <u>at Level 3</u>:** • The next steps focus on support for student learning that is general for the whole class, not specifically targeted for individual students. • The support addresses learning related to the standards and learning objectives that were assessed. • The candidate refers to research or theory when describing the next steps. The connections between the research/theory and the next steps are not clearly made.
Below 3	**Evidence that demonstrates performance <u>below 3</u>:** • The next steps are not directly focused on student learning needs that were identified in the analysis of the assessment. • Candidate does not explain how next steps are related to student learning. **What distinguishes Level 2 from Level 3:** At Level 2, • the next steps are related to the analysis of student learning and the standards and learning objectives assessed. • The next steps address improvements in teaching practice that mainly focus on how the candidate structures or organizes learning tasks, with a superficial connection to student learning. There is little detail on the changes in relation to the assessed student learning. Examples include repeating instruction or focusing on improving conditions for learning such as pacing or classroom management, with no clear connections to how changes address the student learning needs identified.

	What distinguishes Level 1 from Level 2: There are **three ways** that evidence is scored at Level 1: 1. Next steps **do not follow from** the analysis. 2. Next steps are **unrelated to the standards and learning objectives** assessed. 3. Next steps are **not described in sufficient detail** to understand them, e.g., "more practice" or "go over the test."
Above 3	**Evidence that demonstrates performance <u>above 3</u>:** • Next steps are directly focused on specific student learning needs related to conceptual understanding, use of scientific practices during inquiry, and evidence-based argument about a scientific phenomenon, and are supported by research and/or theory. **What distinguishes Level 4 from Level 3:** At Level 4, • the next steps are clearly aimed at supporting specific student needs for either individuals (2 or more students) or groups with similar needs related to one or more of the three areas of science learning (conceptual understanding, use of scientific practices during inquiry, and evidence-based argument about a scientific phenomenon). • The candidate discusses how the research or theory is related to the next steps in ways that make some level of sense given their students and central focus. They may cite the research or theory in their discussion, or they may refer to the ideas from the research. Either is acceptable, as long as they clearly connect the research/theory to their next steps. **What distinguishes Level 5 from Level 4:** At Level 5, • the next steps are clearly aimed at supporting specific student needs for <u>both</u> individuals and groups with similar needs related to one or more of the three areas of science learning (conceptual understanding, use of scientific practices during inquiry, and evidence-based argument about a scientific phenomenon). • The candidate explains how principles of research or theory support the proposed changes, with clear connections between the principles and the next steps. The explanations are explicit, well-articulated, and demonstrate a thorough understanding of the research or theoretical principles involved.