

Assessment of Subject-Specific Pedagogies - Science

Directions:

1. Throughout the semester, look for evidence that the candidate addresses the subject specific pedagogies listed below while teaching and working with students
2. During the last half of the semester, identify 5-7 of the pedagogies to look at as part of a formal observation. Debrief with the candidates to help them reflect on these subject specific pedagogies - both strengths and areas for growth .
3. At the end of the semester, assess the candidate's progress on these subject specific pedagogies. Note that this is about progress - you will also assess at the end of Student Teaching (Spring semester). Provide your overall assessment on the recommendation form that will be sent to you using the following criteria:

Criteria (for the overall assessment of subject-specific pedagogies):

Exceeding (4): The candidate *has exceeded expectations by consistently and effectively* engaging in many of the pedagogies at the level beyond a beginning teacher.

Meeting (3): The candidate *consistently and effectively* engages in many of the pedagogies at the expected level of a beginning teacher.

Approaching (2): The candidate *effectively engages in* some of the pedagogies at the expected level of a beginning teacher, *but needs continued support for* other pedagogies.

Attempting (1): The credential candidate has *attempted to engage in some of the subject specific pedagogies*, but *needs significant support* in order to effectively meet the expected level of a beginning teacher.

List of Subject Specific Pedagogies - Science (from the California Commission on Teacher Credentialing)

- The credential candidate demonstrates the ability to teach the state-adopted academic content standards for students in science and applicable English Language Development Standards.
- The credential candidate balances the focus of instruction between disciplinary core ideas, crosscutting concepts, and scientific and engineering practices as indicated in the Next Generation Science Standards.
- The credential candidate's explanations, demonstrations, and class activities serve to illustrate science concepts and principles, scientific investigation, and experimentation.
- The credential candidate emphasizes the nature of science, the integration of engineering design, and the connections between science, society, technology, and the environment.
- The credential candidate integrates mathematical concepts and practices including the importance of accuracy, precision, and estimation of data and literacy into science pedagogy.
- The credential candidate provides students with the opportunity to use and evaluate strengths and limitations of media and technology as integral tools in the classroom.
- The credential candidate encourages students to pursue science and engineering interests, especially students from groups underrepresented in science and engineering careers.
- The credential candidate teaches students to provide ethical care when live animals are

present in the classroom.

- The credential candidate demonstrates sensitivity to students' cultural and ethnic backgrounds in designing science instruction.
- The credential candidate teaches students to engage in disciplinary discourse practices that foster evidence-based explanations and argumentations to write opinion/persuasive and expository text in the content area.
- The credential candidate teaches students to independently read, comprehend, and evaluate instructional materials that include increasingly complex subject-relevant texts and graphic/media representations presented in diverse formats.
- The credential candidate assures that students at various English proficiency levels have the academic language needed to meaningfully engage in the content.
- The credential candidate guides, monitors, and encourages students during investigations and experiments.
- The credential candidate demonstrates and encourages the use of multiple ways to measure and record scientific data, including the use of mathematical symbols.
- The credential candidate structures and sequences science instruction to enhance students' academic knowledge to meet or exceed the state-adopted academic content standards for students.
- The credential candidate establishes and monitors procedures for the care, safe use, and storage of equipment and materials and for the disposal of potentially hazardous materials.