Single-Point Rubric for Sensemaking Lessons

Mastery of discrete facts or pieces of science content

"Knowledge in use" or science used to explain or predict phenomena or design solutions to problems.

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Phenomena & Student Questions *What questions are students trying to answer/what problem are they trying to solve?*		
Suggestions for Improvement		Evidence Criteria Met/Partially Met
	STUDENTS try to answer a ^question about a phenomenon or solve a problem. ^Students' question or student-identified problem	
	Provides teacher guidance for eliciting student questions and connecting students' prior knowledge and personal experiences to the phenomenon or problem.	

Make Sense of Science Ideas *What part of the how or why of the phenomenon can students explain?*		
Suggestions for Improvement		Evidence Criteria Met/Partially Met
	STUDENTS make sense of **disciplinary core ideas** (or parts of ideas) and/or ***crosscutting concepts** they need to explain how or why the phenomenon occurs.	
	Guidance is provided for teachers to help move student thinking about **disciplinary core ideas** forward/deeper and may include questions for students and talk moves to support students in building understanding or reaching consensus. *Crosscutting concepts may be leveraged to help students think about the phenomenon.	

The focus is on individual student engagement in science and engineering practices and/or teacher-led whole group interactions.

Students engage in science and engineering practices collaboratively to make sense of a needed science idea(s)

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Use Science and Engineering Practices *What are students doing?*		
Suggestions for Improvement		Evidence Criteria Met/Partially Met
	STUDENTS engage in *elements* of science and engineering practices to make sense of science ideas needed to explain a *how* or *why* of the phenomenon.	
	Guidance is provided for teachers to support students in engaging in science and engineering practices. *Crosscutting concepts may be leveraged to support students in engaging with the science and engineering practices.	

Student Ideas *How are students moving their science thinking forward together?*		
Suggestions for Improvement		Evidence Criteria Met/Partially Met
	Students have multiple, *necessary* opportunities to share ideas, build on each other's ideas, provide each other feedback, and change their minds.	
	Guidance is provided for teachers on how to support a sequence of student interactions (e.g., independent thinking time, think-pair-share, small groups) and encourage use of multiple modalities (i.e., talk, text, drawings, symbols, graphs, gestures) by students to communicate ideas.	

More Like Less Like Table (adapted from [NGSS Lesson Screener])

Three-dimensional lessons will look *less* like this:	Three-dimensional lessons will look *more* like this:
Explaining Phenomenon or Designing Solutions	
Explaining phenomena and designing solutions are not part of student learning/are presented separately from "learning time" (i.e., used only as a "hook" or engagement tool; used only for enrichment/reward after learning; only loosely connected to a DCI).	The *purpose and focus* of the lesson are to support students in making sense of phenomena and/or designing solutions to problems. The entire lesson drives toward this goal.
Teachers tell students about an interesting phenomenon or problem in the world.	Students get *direct* (preferably firsthand, or through media representations) experience with phenomenon or problem that is relevant to them and is developmentally appropriate.
Driving questions are given to students.	Student questions, prior experiences, and diverse backgrounds related to the phenomenon or problem are used to drive the lesson and the sensemaking or problem-solving.
Student Ideas	
Students have opportunities to share ideas and feedback with each other directly.	• Classroom discourse focuses on explicitly expressing and clarifying *student* reasoning • Students have opportunities to share ideas and feedback with each other directly.
Teachers assume that correct answers indicate student proficiency *without the student providing evidence or reasoning* (i.e., student artifacts only show answers; student use of vocabulary in context alone used as indication of proficiency.)	Teachers deliberately seek student artifacts that show direct, observable evidence of learning. Student artifacts include elaborations (which may be written, oral, pictorial, and kinesthetic) of reasoning behind their answers, and show how students' thinking has changed over time.
Three-Dimensional Sensemaking	

The SEPs (CCCs) can be inferred by the teacher (not necessarily the students) from the lesson materials OR Students engaged in SEPs (CCCs) in a broad sense not at grade-appropriate, element level.	Students explicitly use the SEP (CCC*) elements* to make sense of the phenomenon or solve a problem.
A single practice element shows up in the lesson.	The lesson helps students use multiple (e.g., 2-4 practice elements as appropriate in their learning.
Phenomena are brought in only after the lesson so students can apply what they learned.	The *development* of science ideas is anchored in explaining phenomena or solving a problem.
Provides teachers with generic directions to engage students in sensemaking (i.e., no strategies/guidance for supporting students in using SEPs or discussions for sensemaking that is specific to the lesson).	Provides teachers strategies and/or guidance *specific to the lesson* to ensure ALL students are engaged in sensemaking.