Assessment Rubric for Instructional Materials

The rubric below is built around the following initial ideas:

- Students need to know up front where they are going, so students should be clear on learning outcomes.
- Students should know what achievement of the outcomes looks like, so students should be clear on indicators of success.
- Students should see a path through the arc of lessons to achieve the learning outcomes with benchmarks along the way, so they develop improved sense of internal locus of control.
- Students should be asked to articulate their initial ideas about a major scientific concept? (formative assessment)
- Students should be asked to compare their original thinking to their developing understanding in the Explain. (formative assessment)
- Students should be asked to demonstrate their understandings and abilities in the evaluate. (summative assessment)
- Students receive feedback from self, peer, and teacher in the Evaluate

Element	Not at all	Somewhat	Very Well	Comment
1a. The materials explicitly identify the learning goals for students and ask students to examine and consider those learning goals at the beginning of the unit.				
1b. The materials support teachers in helping students identify, examine, and consider learning goals.				
2a. The materials explicitly provide students with a "pathway" through the arc of lessons with benchmarks for success. The pathway clearly indicates to students how the learning outcomes will be achieved through the lesson arc. Students are asked to examine and consider the learning pathway and benchmarks during the chapter.				
2b. The materials support teachers in helping students identify the learning "pathway" and benchmarks for success.				
3a. The materials ask students to articulate their initial ideas about the major scientific concept of the unit in the Engage and/or Explore.				
3b. The materials support teachers in helping students articulate their initial ideas.				
4a. The materials ask students to compare their developing understanding of the major scientific concept with their initial ideas, and to consider their movement toward the learning outcomes in the Explain.				
4b. The materials support teachers in helping students compare their developing understanding with their initial ideas.				
5a. The materials ask students to demonstrate their understandings and abilities associated with the major concept of the unit in the Evaluate.				
5b. The materials support teachers in helping students demonstrate their abilities and understandings.				
6a. The materials offer opportunities for students to receive self, peer, and teacher assessment across the chapter.				
6b. The materials provide the teacher with instructions on what to do with student data from assessments.				

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Collaborative Learning Rubric

Please review the selected group activities using the following rubric (one copy of rubric per activity). If you prefer, you may write comments directly on the manuscript.

Activity: _____

Element of Collaborative Grouping	Element is not present	Element may be present but requires clarification	Element is clearly present & well supported	Comment
Group activity requires face to face interaction				
Students are working toward a common group goal				
Students are individually accountable for some aspect of group activity				
Students are collectively accountable for some aspect of group activity				
Students are encouraged to use specific social skills associated with the group activity				
Students are directed to evaluate their functioning as a collaborative group				
Teachers are provided specific instructions for assessing individuals and the group as a whole				

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Literacy Strategies Rubric

Note to reviewer: please read process and procedure steps leading up to the readings. You will evaluate only a random selection of readings from the instructional materials.

1. Was reading at appropriate grade level (both superficially and contextually)?

Neither superficially nor contextually at grade level	Either superficially or contextually at grade level, but not both	Both superficially and contextually at grade level
1	2	3

2. Does the reading have a logical flow that supports comprehension?

Flow of reading does not support comprehension	Flow is logical, but does not best support comprehension	Flow is logical and supports comprehension
1	2	3

3. Does the reading include links to experiences readers may have had?

The reading does not reference specific experiences	The reading references experiences, but it is unlikely that the experience is shared by a broad audience of students	The reading references experiences likely to be shared by a broad audience of students
1	2	3

4. Are titles and subtitles used to help readers identify the main idea of the reading?

Headings are not used	Headings are used but do not provide students with a clear sense of the main idea	Headings are used and provide students with a clear sense of the main idea
1	2	3

5. Are colloquialisms avoided or, if used, used to support the main idea?

Colloquialisms are used and not explained in the reading	Colloquialisms are used and briefly explained, but are not important to the reading	Colloquialisms are avoided or, if used, are thoroughly explained and are important to the reading
1	2	3

6. Is a reason to read provided in the process and procedures?

No reason to read is provided	A reason to read is provided, but the reason is not associated with students' personal experiences or is only associated with experiences students may have had on their own.	A reason to read is provided and is directly associated with experiences students have had or will have in the classroom.
1	2	3

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7. Are strategies provided in the TE to help teachers set up the reason to read for their students?

There are no TE strategies to help teachers set up the reason to read for their students	The TE mentions the existence of the "reason to read" in the SE, but does not elaborate	The TE provides specific strategies to teachers to help motivate students to read by expounding on what is in the SE
1	2	3

8. Are strategies provided in the TE to help teachers structure the reading as part of the classroom experience?

There are no TE strategies to help teachers structure the reading as part of the classroom experience.	The TE provides general strategies for structuring readings as part of the classroom experience, but specific strategies are not mentioned for a specific reading.	The TE provides specific strategies to teachers to help teachers structure a specific reading as part of the classroom experience.
1	2	3

9. Did the reading avoid the use of "seductive details"—relatively unimportant but interesting details that detract from the main idea?

Seductive details are used and detract from the main idea.	Seductive details are used and may detract from the main idea—their seductiveness may be due to their concreteness	Seductive details are avoided. Concrete and/or interesting details clearly support the main idea
1	2	3

10. All visual representations of key ideas are described in the text and are associated with a specific strategy to help students make meaning of the visual representation.

Visual representations of ideas are either not used and are needed, or are used but distract from the main idea	Visual representations of ideas are used and are needed, but are either weakly or not associated with the text and/or are not associated with a specific strategy for helping students make meaning of the representation	Visual representations of ideas are used where needed, are appropriately associated with the text, and are associated with a specific strategy for helping students make meaning of the representation
1	2	3

11. All visual representations have synergistic captions, legends, and titles that facilitate student understanding of the visual.

Captions, legends, and titles are either absent or, if present, do not facilitate student understanding of the visual.	Captions, legends, and titles are used to facilitate student understanding of the visual, but the captions, legends and titles are not synergistic.	Captions, legends, and titles are used synergistically to facilitate student understanding of the visual.
1	2	3

12. Do the questions leading up to and following the reading include pre-reading, during-reading, and post-reading activities?

Questions do not include pre-reading, during reading, and post-reading activities.	Pre-reading, during reading, and post reading activities exist, but the activities are in some way inappropriate for the text.	Pre-reading, during reading, and post reading activities exist and are highly appropriate for the text.
1	2	3

Sense-making Rubric

The following "big ideas" related to sense making were used in the development of this rubric.

- When students make sense of a scientific concept, the whole is bigger than the sum of the following parts; however, these skills are essential to making sense of key ideas:
    - interpreting text, diagrams, or graphs
    - relating concepts to their own experiences and new contexts
    - applying new concepts to what the student already knows
    - generalizing concepts or ideas to new contexts
- When students make sense of a scientific concept, they "own it" and are able to talk about it from their own perspective, are able to recognize when original ideas are not accurate or scientific, and are able to understand why their original ideas are not accurate or scientific.
- Students bring their own experiences plus classroom experiences to bear when making sense of a scientific concept.
- If students are able to make sense of ideas they should be able to organize their detailed knowledge or understanding of concrete cases using core concepts.

The following strategies may be used throughout the unit to help students make sense of the scientific concepts:

- Highlight comments and captions
- Think Share Advise Revise
- Collaborative learning
- Explanation template
- Graphic organizers
    - Venn diagrams
    - T-tables
    - Concept maps
    - Flow chart
- Analogy maps
- Personal glossary

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Interpretation

1. The unit provides **regular and sufficient** opportunities for the students to use strategies to help them make sense of scientific concepts.

Opportunities for students to use sense-making strategies are rare or non-existent.	Opportunities exist to use strategies, but there are missed opportunities for students to use strategies for understanding key concepts.	Regular and sufficient opportunities exist for students to use strategies to help them make sense of scientific concepts.
1	2	3

2. The unit provides opportunities for students to use a **variety** of strategies to help them make sense of scientific concepts.

Opportunities for students to use varied sense-making strategies do not exist: the strategies, if present, are all the same type.	Opportunities exist to use varied strategies, but there are missed opportunities for varying strategy use, or there is inappropriate use of strategies.	Opportunities exist for students to use a variety of strategies to help them make sense of scientific concepts and strategies are used appropriately.
1	2	3

Application

3. Explicit opportunities exist for students to **connect** scientific concepts to their personal and classroom experiences.

Opportunities do not exist for students to connect iconcepts to their personal and classroom experiences.	Opportunities exist for students to connect concepts to their personal and classroom experiences; however, they emphasize trivial ideas or concepts, and/or it is likely that not all students would relate to a given experience.	Opportunities exist for students to connect major concepts to their personal and classroom experiences, helping them make sense of the major concepts.
1	2	3

4. Explicit opportunities exist for students to **articulate** their own understanding of scientific concepts.

Opportunities do not exist for students to articulate concepts in their own way.	Opportunities exist for students to articulate concepts in their own way, but only for trivial ideas or concepts.	Opportunities exist for students to articulate major concepts in their own way, helping them make sense of the major concepts.
1	2	3

Generalization

5. Explicit opportunities exist for students to **organize** their detailed knowledge or understanding of concrete cases using core concepts.

Students are given no opportunity to organize detailed knowledge or understanding of concrete cases using core concepts.	Instructional materials may organize detailed information or concrete cases using core concepts, but students do not organize the ideas themselves.	Students are given the opportunity to organize detailed knowledge or concrete cases using core concepts.
1	2	3

6. Students are given explicit opportunities to **apply** core concepts to detailed information in new contexts.

Students are given no opportunity to apply core concepts to detailed information in new contexts.	Instructional materials may apply core concepts to detailed information in new contexts for students, but students do not apply the concepts themselves.	Students are given the opportunity to apply core concepts to detailed information in new contexts.
1	2	3

7. We have selected specific instances of the use of sense-making strategies within the instructional materials. Please examine these specific uses and comment on the appropriateness of the strategy for the particular context. Please feel free to include any other comments about the strategies as you see fit.

Sense-Making Strategy	Appropriateness of strategy for text, type of diagram, or graph			Comment (include extra pages as necessary)
	Not appropriate	Somewhat appropriate	Highly appropriate	
Strategy 1 (writer selected)				
Strategy 2 (writer selected)				
Strategy 3 (writer selected)				
Strategy 4 (writer selected)				
Strategy 5 (writer selected)				
Strategy 6 (writer selected)				