

NGSS INNOVATIONS	IDENTIFY EVIDENCE FOR THE INNOVATION
<p><b>Criteria 1: Integrating Three Dimensions</b></p>	<p><b>Part A:</b> Check instruction for three dimensional learning opportunities</p> <p>(1) Sample three sequences of instruction (from different units) consisting of four to five activities per sequence. Identify the three dimensions (i.e., SEPs, DCIs, CCCs) from grade band-appropriate bullets in Appendices E, F, and G.</p> <p>(2) Identify evidence of opportunities to learn the three dimensions simultaneously.</p> <p><b>Part B:</b> Check assessments [embedded and/or end of unit] for three dimensional assessment opportunities.</p> <p>(3) Identify three dimensions (i.e., SEPs, DCIs, CCCs) from grade band appropriate bullets in Appendices E, F, and G.</p> <p>(4) Identify evidence of opportunities to assess three dimensions simultaneously.</p>
<p><b>Criteria 2: Focus on Engaging Phenomena</b></p>	<p>(1) Sample instructional sequences to determine if each sequence is centered on a driving real-world phenomenon or design problem.</p> <p>(2) Describe evidence that the phenomenon or problem is engaging for and meaningful to the target students.</p>
<p><b>Criteria 3: Engineering Design and the Nature of Science</b></p>	<p>(1) Locate components of engineering design and the nature of science in student materials.</p> <p>(2) Identify for each grade level and discipline an instructional sequence that includes engineering design or the nature of science in SEPs or CCCs — including adequate time, and opportunity for learning.</p> <p>(3) Identify for each grade level and discipline an instructional sequence that includes ETS DCIs alongside DCIs from other science disciplines — in addition to the performance expectations with asterisks.</p>
<p><b>Criteria 4: K–12 Learning Progression</b></p>	<p>(1) Within a grade: Sample three sequences of instruction to look for evidence of a progression of each dimension within the grade level. Check for evidence that multiple different grade levels also have this within-grade progression.</p> <p>(2) Across grades: Use the NGSS charts (Appendix E, F, G, H, I) to identify content for SEPs, DCIs, and CCCs at the different grade levels and determine the degree to which the content in each dimension represents an appropriate learning progression.</p>
<p><b>Criteria 5: Connections to ELA and Mathematics</b></p>	<p>Examine instructional sequences to identify any evidence of integration with and/or connections to ELA and mathematics standards.</p>

ADDITIONAL CRITERIA	IDENTIFY EVIDENCE FOR THE INNOVATION
<p><b>Criteria 6: Aligns to models recommended by NGSS Implementation Planning Team</b></p>	<p><b>Capacity for integrated (or modular) science at each grade level in the Integrated Appendix K model or the preferred California integrated model.</b></p> <p>Review publisher’s shared resources and talk with representatives and/or authors to identify the degree of alignment to the two models</p> <p>If a material doesn’t align to either of the two models, review materials that indicate the rationale for the order of the units.</p>
<p><b>Criteria 7: Support for Equity in the School Context</b></p>	<p>(1) Examine each unit sequence for opportunities for engagement and access for diverse groups</p> <p>(2) Sample the same three sequences of instruction for the innovations to assess</p> <ol style="list-style-type: none"> <li>a. Extensions consistent with the learning progression for students with high interest or who have already met the performance expectations</li> <li>b. Additional support materials and/or strategies for students who are struggling to meet performance expectations</li> </ol> <p>(3) Sample the same three sequences of instruction as before to assess appropriate language supports (reading, writing, listening and/or speaking) for English language learners</p>
<p><b>Criteria 8: Connections to Computer Science and Computational Thinking</b></p>	<p>Review publisher’s shared resources and communications to determine the extent of the opportunities for computer science and computational thinking integration.</p>

**Rating Scale:**

- **1 = Little or No Evidence:** This is self-evident. You can find little to no evidence of the NGSS innovation.
- **2 = Inadequate Evidence:** You can identify one or two instances of the innovation, but they do not constitute adequate time or opportunity for students to learn the content or develop the ability.
- **3 = Adequate Evidence:** You can identify three or four instances of the innovation, and they constitute adequate time and opportunity for average students to learn the content and develop the abilities.
- **4 = Excellent Evidence:** You can identify five or more instances of the innovation, and they constitute adequate time and opportunity for most students to learn the content and develop the abilities.

NGSS INNOVATION	CRITERIA 1A	SAMPLING PROCESS
<b>Integrating Three Dimensions</b>	SEPs, DCIs, and CCCs blend and work together to support students in three-dimensional learning about natural phenomena or engineering solutions.  <b>Students have time and opportunities to:</b> <ul style="list-style-type: none"> <li>• Understand, construct, and use specific elements of the SEPs;</li> <li>• Understand, construct, and use specific elements of the DCIs;</li> <li>• Understand, construct, and use specific elements of the CCCs; and</li> <li>• Blend all three dimensions together to support student learning.</li> </ul>	Sample three sequences of instruction consisting of four to five activities per sequence. Identify SEPs, DCIs, and CCCs as well as evidence of opportunities to learn each of the three dimensions and specific elements of the dimensions (i.e., specific bullets from Appendices E, F, and G). Identify evidence of opportunities to learn the three dimensions simultaneously.

**EVIDENCE FOR THE INNOVATION: INTEGRATING THREE DIMENSIONS**

Students have time and opportunities to understand, construct, and use specific elements of the <i>Science and Engineering Practices</i> :		
	Unit and Lesson	Rating
SAMPLE 1		
SAMPLE 2		
SAMPLE 3		
Students have time and opportunities to understand, construct, and use specific elements of the <i>Disciplinary Core Ideas</i>		
	Unit and Lesson	Rating
SAMPLE 1		
SAMPLE 2		
SAMPLE 3		









NGSS INNOVATION	CRITERIA 4	SAMPLING PROCESS
<b>K–12 Learning Progression</b>	Science and Engineering Practices, Disciplinary Core Ideas and Cross Cutting Concepts build coherently <i>within a grade and across the grades</i> in a coherent program.	(1) Within a grade, sample three sequences of instruction to look for evidence of a progression of student knowledge and skill in each dimension within the grade level. Check for evidence that multiple different grade levels also have this within-grade progression.  (2) Across grade spans, use the NGSS charts (Appendix E, F, G, H, I) to identify content for SEPs, DCIs, and CCCs at the different grade levels and determine the degree to which the content in each dimension represents an adequate learning progression.

**EVIDENCE FOR THE INNOVATION: GRADE LEVEL LEARNING PROGRESSION**

Within a grade level, Science and Engineering Practices, Disciplinary Core Ideas and Cross Cutting Concepts build coherently.

	Unit and Lessons	Rating
SAMPLE 1		
SAMPLE 2		
SAMPLE 3		

**EVIDENCE FOR THE INNOVATION: GRADE SPAN LEARNING PROGRESSION**

Across grades, Science and Engineering Practices, Disciplinary Core Ideas and Cross Cutting Concepts build coherently.

	Unit and Lessons	Rating
SAMPLE 1		
SAMPLE 2		
SAMPLE 3		

### **SUMMARY AND RECOMMENDATIONS**

- (1) To what degree does the program meet the criteria for K-12 learning progressions?
- (2) Explain your reasoning; what supports your rating?
  
- (3) What suggestions or recommendations would you make if we were to adopt this material to improve it?



ADDITIONAL CRITERIA	CRITERIA 6	SAMPLING PROCESS
<p><b>Aligns to models recommended by NGSS Implementation Planning Team</b></p>	<p>Capacity for integrated (or modular) science at each grade level in the Integrated Appendix K model or the preferred California integrated model.</p>	<p>Review publisher’s shared resources and talk with representatives and/or authors to identify the degree of alignment to the two models</p> <p>If a material doesn’t align to either of the two models, review materials that indicate the rationale for the order of the units.</p>

**EVIDENCE FOR THE INNOVATION: ALIGNS TO RECOMMENDED MODELS**

**Narrative:**

**SUMMARY AND RECOMMENDATIONS**

- (1) To what degree does the program meet the criteria for aligning to the agreed upon models?
- (2) To what degree does the program have a rationale for an order of the units?
- (3) Explain your reasoning; what supports your rating?
- (4) What suggestions or recommendations would you make if we were to adopt this material to improve it?

ADDITIONAL CRITERIA	CRITERIA 7	SAMPLING PROCESS
Equity	Support for Equity in the School Context	(1) Examine each unit sequence for opportunities for <i>engagement</i> and <i>access</i> for diverse groups (2) Sample three sequences of instruction to assess: <ol style="list-style-type: none"> <li>a. Extensions consistent with the learning progression for students with high interest or who have already met the performance expectations</li> <li>b. Additional support materials and/or strategies for students who are struggling to meet performance expectations</li> </ol> (3) Sample the same three sequences of instruction as before to assess appropriate language supports (reading, writing, listening and/or speaking) for English language learners

EVIDENCE FOR THE INNOVATION: SUPPORT FOR EQUITY IN THE SCHOOL CONTEXT		
Opportunities for engagement and access for diverse student groups	<b>Rating:</b>	
Extensions consistent with the learning progression for students with high interest or who have already met the performance expectations		
	<b>Unit and Lessons</b>	<b>Rating</b>
SAMPLE 1		
SAMPLE 2		
SAMPLE 3		
Additional support materials and/or strategies for students who are struggling to meet performance expectations		
	<b>Unit and Lessons</b>	<b>Rating</b>
SAMPLE 1		
SAMPLE 2		
SAMPLE 3		



ADDITIONAL CRITERIA	CRITERIA 8	SAMPLING PROCESS
Computer Science/Computational Thinking	Connections to Computer Science and Computational Thinking	Review publisher’s shared resources and communications to determine the extent of the opportunities for computer science and computational thinking integration.

EVIDENCE FOR THE INNOVATION: CONNECTIONS TO COMPUTER SCIENCE AND COMPUTATIONAL THINKING
Narrative:

SUMMARY AND RECOMMENDATIONS
<p>(1) To what degree does the program meet the criteria for integrating with computer science and computational thinking?</p> <p>(2) Explain your reasoning; what supports your rating?</p> <p>(3) What suggestions or recommendations would you make if we were to adopt this material to improve it?</p>