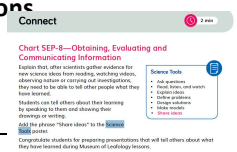
| Designed for the NGSS: Foundations | High Quality<br>5 | Medium Quality<br>3 | Low Quality<br>1 |
|---|---|---|---|
| **F1. Presence of Phenomena/Problem**. The materials include phenomena/problems that have the ***potential*** to drive student learning toward the targeted learning goals in the following ways:<br>• phenomena/problems in the materials are to be relevant to students;<br>• explanations for phenomena connect to the three dimensions; and,<br>• solutions to problems connect to the three dimensions. | The materials include phenomena/problems that have strong *potential* to drive student learning toward the targeted learning goals. | The materials include phenomena/problems that have some *potential* to drive student learning toward the targeted learning goals. | The materials include phenomena/problems that have limited *potential* to drive student learning toward the targeted learning goals. |
| **F2. Presence of Three Dimensions.** The materials include opportunities for students to develop and use the three dimensions, such that:<br>• the DCIs, SEPs, and CCCs are present and have the potential to support student learning toward the targeted learning goals for each dimension; and,<br>• when engineering design is a learning focus, it is integrated with other appropriate dimensions (i.e., engineering is not isolated). | The materials consistently provide opportunities for students to develop and use the three dimensions. | The materials occasionally provide opportunities for students to develop and use the three dimensions. | The materials rarely provide opportunities for students to use the three dimensions. |
| **F3. Presence of Logical Sequence.** Materials demonstrate appropriate sequencing of three dimensions when:<br>• they include a targeted set of DCIs, SEPs, and CCCs within a sequence;<br>• the sequence is clear and logical across the DCIs; and,<br>• the SEPs and CCCs are potentially sufficient and appropriate for students to figure out the phenomena or problems. | The materials consistently exhibit a clear, logical, and appropriate sequence across the three dimensions. | The materials occasionally exhibit a clear, logical, and appropriate sequence across the three dimensions. | The materials rarely exhibit a clear, logical, and appropriate sequence across the three dimensions. |

# Designed for NGSS: Foundations
## Analyze Evidence

**Directions**

1. Review the Designed for NGSS: Foundations Rubric.
2. Reflect on the evidence (or lack of evidence) that you and your team gathered and represented.
3. Record strengths and limitations for each criterion based on your evidence. Cite specific examples.

| | Criteria | Strengths | Limitations |
|---|---|---|---|
| Foundations | **F1. Presence of Phenomena/Problems** | Every module has an overarching Phenomenon or Investigative Problem that drives student learning. Students follow a sequence of Driving Questions (DQs) that investigate a series of phenomena/problems which progressively build in complexity, scaffolding students' acquisition of the DCIs, SEPs and CCCs required to master the Module Phenomenon/Investigative Problem.<br><br>In G4 M4: Earthquake Engineering, students investigate the problem: How can we reduce the damage caused by earthquakes? They explore the phenomena of waves then patterns in the location of earthquakes. Next they tackle the problem of how to build earthquake-proof structures, testing different shapes, structures and materials and investigating engineering solutions in the real world. They apply what they have learned to building their own structure. They come to understand that earthquake damage can be reduced by not building on active fault lines where possible, and /or by using engineering solutions that absorb the energy of seismic waves. | |
| | **F2. Presence of Three Dimensions**   | Students are supported to use the three dimensions with increasing sophistication to make sense of the Module Phenomenon, answer the Driving Questions and complete the performance tasks. The DCIs, SEPs and CCCs used in each lesson are clearly identified in the 3D Learning Objectives. E.g. In G1 M1 Museum of Leafology to answer DQ2: How do plants use their parts to grow and survive, students use SEP 1, and CCC s 1,2 to ask questions and identify patterns in the appearance of different plant parts and relate their structure to their function. Through video and text they explore the phenomena of plant and seed growth and do a hands on investigation to observe and record data about pea shoot roots.<br><br>The Science Tools poster tracks use of the SEPs across the year. It starts off blank with SEPs added when used for the first time and referred back to when SEPs are revisited to grow students' recognition of, and confidence at using these important skills. E.g Over the course of G1 M1 students are introduced to SEPs 1, 2,6 and 8.<br><br>Engineering design is well integrated throughout the program. E.g. in G1 M1 DQ3 How are Seeds Dispersed?, students explore different methods of seed dispersal. They investigate the physical characteristics of wind dispersed seeds and take on an Engineering Challenge to design their own wind dispersed seed model. | |
| | **F3. Presence of Logical Sequence** | The Program CA NGSS Framework Alignment sets out a clear and logical sequence for the three dimensions across K6. Within each grade, the Scope and Sequence clearly identifies the sequence of the modules and the three dimensions that each module targets.<br><br>The Performance Expectation Progressions table for each module highlights prior experience of the three dimensions in earlier grades as well as future exposure in later grades. The Table of Contents within each module clearly identifies which Performance Expectations addressed in each Driving Questions and how the three dimensions are sequenced axcross the Driving Questions.<br><br>The Driving Question Overview shows how the student experience of the three dimensions progresses across the DQ, while every Lesson Overview adds detail for how the three dimensions build within a lesson. | |