

# The Assessment Task Development Template

**Introduction:** The Assessment Task Development Template walks users through the steps necessary to develop high quality science assessment tasks. The template is based on [STEM Teaching Tool 41](http://stemteachingtools.org/assets/landscapes/STEM-Teaching-Tool-29-Steps-to-Designing-3D-Assessments.pdf). The content is used with permission from the UW Institute for Science + Math Education.

# **Assessment Task Development Template**

**Step 1.**

**Define what you will assess:** It is important to define what students should understand and be able to do, prior to writing the task. By analyzing relevant sections of *A Framework for K-12 Science Education*, the NJSLS-S Performance Expectations, Foundation Boxes, and Evidence Statements the user can insure that the assessment focusses on the Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts. The 3 dimensions of the text are used to craft a learning claim. These resources are included in the Resource Page (p.3) of this template.

| **Original Framework Test** | **Claim** |
| --- | --- |
| Record the 3 Dimensions here. | Write the claim statement here. |

**Step 2:**

**Brainstorm Possible Scenarios for Eliciting Student Understanding.** What phenomena can be explained id the students can accomplish the claim? Prioritize and select a scenario that best fits the following criteria:

1. it should allow students from non-dominant communities (e.g., ELLs, students from poverty-impacted communities) to fully engage with the task,
2. it should involve a compelling phenomenon related to one or more of the DCIs being assessed—and not feel like a test-like task,
3. it should be quickly understandable by students, and
4. it should lend itself to a broad range of the science and engineering practices.

| **Claim** | **Possible Scenario** |
| --- | --- |
| Record the claim statement here. | Record the scenario here. |

**Step 3:**

**Use Task Formats to Build Questions to Engage Students with the Scenario:** Use Integrating Science Practices into Assessment Tasks, and Integrating Crosscutting Concepts into Assessment and Instruction in combination with the DCI elements to craft assessment tasks.

| **Possible Scenario** | **Questions (Using Task Formats)** |
| --- | --- |
| Record the scenario here. | Write questions that integrate at least two complimentary science and engineering practice with the disciplinary core idea(s) and at least two complementary crosscutting concepts here. |

**Step 4:**

**Imagine the Range of Possible Student Responses to the Questions:** It is valuable to imagine how a range of students might respond to each of the prompts.

| **Questions (Using Task Formats)** | **Hypothetical Student Responses** |
| --- | --- |
| Record questions that integrate at least two complimentary science and engineering practice with the disciplinary core idea(s) and at least two complementary crosscutting concepts here. | Record sample student responses here.  |

**Step 5:**

**Share, Review, and Revise:** Assessment design requires many cycles of developing, testing, and revising tasks to ensure that you are getting an accurate picture of what students know and can do.

## **Resources**

* [SHORT COURSE: How to Develop 3D Formative Assessments for the Science Classroom](http://stemteachingtools.us12.list-manage.com/track/click?u=3de60c5941b2f01e88a3a49cd&id=0179f8c2e0&e=0a67d642e4): Formative assessment in the classroom is crucial because everyone engaged in complex learning benefits from timely and focused feedback. The process also promotes important processes of self-explanation, reflection, and learning (metacognition). This short course will help you learn how to develop and use 3D formative assessments in the classroom.
* [Developing Assessments for the NGSS: Classroom Assessment](http://www.nap.edu/read/18409/chapter/6) National Research Council. (2013).
* [Seeing Students Learn Science](https://www.nap.edu/catalog/23548/seeing-students-learn-science-integrating-assessment-and-instruction-in-the): Integrating Assessment and Instruction in the Classroom (2017).

### **Tools for developing local 3-D Assessments**

* [Integrating Science Practices into Assessment Tasks](http://stemteachingtools.org/brief/30)
* [Integration Crosscutting Concepts into Assessment Tasks](http://stemteachingtools.org/brief/41)
* [Earth and Space Sciences: A Compilation of the Framework and the NJSLS-S](http://www.state.nj.us/education/aps/cccs/science/compilation/Earth.pdf)
* [Life Sciences: A Compilation of the Framework and the NJSLS-S](http://www.state.nj.us/education/aps/cccs/science/compilation/Life.pdf)
* [Physical Sciences: A Compilation of the Framework and the NJSLS-S](http://www.state.nj.us/education/aps/cccs/science/compilation/Physical.pdf)

### **Examples of High-Quality Science Assessments**

* [Next Generation Science Assessment (NGSA) Task Portal:](https://ngss-assessment.portal.concord.org/) The portal provides access to classroom-ready assessments for teachers to use formatively to gain insights into their students' progress on achieving the NJSLS-S performance expectations.