

Science Task Prescreen

Introduction

The purpose of the Science Task Prescreen is to conduct a quick review of assessment tasks to determine whether they might be designed for standards based on the *Framework for K-12 Science Education*, like the Next Generation Science Standards (NGSS). The Prescreen is intended to reveal whether tasks include “red flags”—i.e., challenges commonly found in science assessment tasks.

Evaluating tasks using the Prescreen questions can help educators decide whether a task is worth diving into more deeply. Those interested in pursuing a more rigorous evaluation of tasks should use the Science Task Screener; however, the Task Screener assumes a deeper understanding of *A Framework for K-12 Science Education* and the NGSS. Those who are familiar with the assessment tasks, but not very familiar with the *Framework* or NGSS, should start with the Prescreen as a bridge to understand the key features of tasks developed for the NGSS and *Framework*. For those less familiar with the *Framework*, it will be particularly helpful to use the Prescreen as part of a collaborative professional learning process, to help build a common understanding of the questions and what constitutes as evidence to address them.

Because the Prescreen is a quick screening tool as opposed to a comprehensive evaluation tool, the questions in the Prescreen focus on features that are non-negotiable, easily identified, and reflect the most serious “fatal flaws” seen in attempts to develop science tasks. While there are indeed many other critically important features of science assessments, they are excluded here for the purposes of screening, and are addressed in the Task Screener. For more information about how the Prescreen was developed and its relationship to the Task Screener, please see these [Frequently Asked Questions](#).

Using the Task Prescreen to evaluate science assessment tasks

While it is possible for the Prescreen to be applied by an individual, it is more powerful when used as part of a collaborative review process. These high-level questions can drive very meaningful conversations and help reviewers come to a common understanding of features of NGSS tasks. Reviewers should carefully discuss their answers to the questions and the evidence in the task that led them to those answers to come to a common understanding of language and expectations.

The Prescreen is organized around a short series of yes-or-no questions. In applying the Prescreen to a task, follow these simple steps:

1. Read through the task and complete the task as though you were a student.
2. Read through any additional support materials for the task.
3. Answer the questions in the Prescreen regarding the task and note any red flags.
4. Discuss the answers to the questions and evidence to support those answers with other reviewers.
5. Use your analysis to determine next steps for the task.

Because the Prescreen is applied at the level of the task rather than individual questions, reviewers will need to answer the questions based on evidence from the task as a whole. After reviewing the task using the Prescreen, reviewers should consider the red flags they have identified and determine, based on their needs, whether the assessment:

- A. Warrants further review.** If tasks have few red flags, they might be effective tasks and would benefit from a deeper evaluation. This might be particularly relevant for assessments that are used as major components of a lesson or unit; used across multiple classrooms or schools; or used in other high-impact, higher-stakes scenarios, such as tasks used as part of district- or state-wide assessment efforts. Red flags can be used to determine if the assessment has potential and to focus the major areas of improvement that might be needed.
- B. Should not be used.** Reviewers can use the red flags to determine that, for their current purposes, the task should simply not be used.

Science Task Prescreen

Task Title _____ Grade _____ Date _____

SEP: _____ DCI: _____ CCC: _____

Task Purpose: _____

Before you begin: Complete the task as a student would. Then, consider any support materials provided to teachers or students, such as contextual information about the task and answer keys/rubrics.

Prescreen: Answer the following high-level questions to identify any major red flags (🚩) in your task. If you find one or more red flags, consider the purpose of the task and the evidence gathered to determine whether the task warrants a deeper dive.

Question	Yes	No
1. Is there a phenomenon or problem driving the task ?		🚩
2. Can the majority of the task be answered without using information provided by the task scenario?	🚩	
3. Can significant portions of the task be answered successfully by using rote knowledge (e.g., definitions, prescriptive or memorized procedure)?	🚩	
4. Does the majority of the task require students to use reasoning to successfully complete the task?		🚩
5. Does the task require students to use some understanding of disciplinary core ideas to successfully complete the task?		🚩
6. Do students have to use at least one science and engineering practice to successfully complete the task?		🚩
7. Are the dimensions assessed separately in the majority of the task?	🚩	
8. Is the task coherent and comprehensible from the student perspective?		🚩

Based on your assessment needs and the task purpose recorded above, make a recommendation about this task moving forward (choose one) :

Warrants further review.

Should not be used.

Summarize your evidence and reasoning: