

TDSCIN ASSESSMENT TASK DEVELOPMENT CHECKLIST

This document lays out the task development priorities used by the Tennessee District Science Network. As priorities may differ for other states and networks, task developers are encouraged to come to consensus on the priorities for their particular situation.

Task Components

All tasks include these components:

- □ **The three-dimensional claim about student performance.** This is what students are showing us that they know. Be transparent and specific about what is being assessed and what isn't.
- □ Scenarios that are phenomenon- or design problem-based. The scenario includes everything students are using to respond to the task. In can include a variety of formats (e.g., text, graphics, charts, data tables, or videos).

□ **Prompts and questions.** Prompts and questions collectively ask students to make sense of the scenario presented.

- **Rubrics that support feedback.** This should include guidance for (1) how to evaluate student responses relative to the target as well as (2) guidance for who should be providing feedback (e.g., self, peer, teacher, invited guests).
- □ Support material for implementing the task as needed. This includes teacher directions/necessary background information, list of required materials, and suggestions for differentiation. This does not include instructional sequences, but rather focuses on the support for implementing the task itself and providing appropriate feedback. Be explicit about what types of technology, data sets, and statistical analyses you're using because the technology students will have access to will vary.



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Task Features

All tasks should meet the criteria in the <u>Science Task Screener</u>. Additionally, the tasks in the TDSciN Task Library should also include the following features.

Tasks should:

- Avoid common traditional classroom contexts, unless using them in a markedly different way. (A common example to avoid might be using roller coasters to explore kinetic and potential energy.)
 - O Grades 3–5. Local, place-based, or universal phenomena or problems.
 - O Grades 6–12. Compelling (at grade level to diverse students) phenomena. These can be local, but do not have to be.
- Assess a three-dimensional claim that includes at least part of a grade-appropriate SEP, DCI, and CCC that are used together to make sense of a phenomenon or address a problem. Across both tasks:
 - O Focus on different primary DCIs within your assigned discipline in each task. Tasks may also integrate DCIs from other disciplines.
 - ${\bf O}$ Include a range of SEPs and CCCs.
 - O Task writers don't need to focus on particular combinations of DCIs, SEPs and CCCs (e.g., specified by the TN Science Standards).
- Intentionally use a variety of question types. Use a variety of open-ended or supported-open-ended question types (e.g, Claim Evidence Reasoning [CER], modeling, evaluation of given information) with limited selected-response questions (e.g., multi-select, Evidence Based Selected Response [EBSR], multiple choice, completing sentence starters).
- Produce individual student artifacts. Tasks should produce a student work product that reveals individual student thinking. This can be the sole focus of the task, or part of a collaborative task that includes both group and individual artifacts.
- □ Involve student choice. Tasks should include some component of student choice, which requires that certain aspects of the rubric are more flexible: specific in criteria (rather than a right/wrong answer) so a student still hits intended assessment target while having the flexibility of choice.
- \Box Take 30–90 minutes. Core task should be able to be completed in 30–90 minutes.



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Task Features

Optional but encouraged features:

Engineering. At least two workgroups in each grade band should connect one of their tasks to engineering. This means assessing at least one Engineering, Technology, and Applications of Science (ETS) DCI integrated with a DCI from your assigned physical, life, or earth and space science discipline along with an engineering-focused SEP.

Note: You will have to work with the other workgroups in your grade band to determine whether at least two are incorporating engineering.

- Grading and Scoring. While all tasks will include a rubric, only one task in each workgroup should include support for providing a final grade or score.
 - O Grades 3-5. For the task that does not include grading or scoring support, include extended formative support to help the teacher know how to adjust instruction based on student answers. (Grades 6–12 may provide formative support as well if appropriate.)
- □ Innovative extensions. One task should include extension components and support for the task to provide more choice, collaboration, student voice, and innovative ways to make student thinking visible to attend to student agency and identity in science. This could include several different features, such as:
 - O Allowing students to make key decisions about what they're doing (e.g., which phenomenon they're making sense of or choosing a problem to design a solution to in their city).
 - O Authentic research or design projects.
 - O Cross-curricular project suggestions (e.g., connect with math, ELA, social studies, art)
 - O Innovative artifacts (e.g., podcasts, mock or real summits, infographics)

□ Collaboration.

\bigcirc 3-5: Grade-appropriate collaborative work.

- O 6-12: Authentic labs. One task should include an authentic lab, which does not confirm what students have already learned, but rather is used to authentically figure something out.
 - The format students use to present ideas should vary (does not have to be a lab report).
 - If possible, include a version of the task that involves equipment and a version that can be done without equipment (e.g., students are given data).



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