One of the major shifts—and common buzzwords—for science assessments is "phenomena." When we asked teachers and researchers to dive into tasks and identify what characteristics in assessments set students up to demonstrate three-dimensional performances, we heard loud and clear that phenomena are one of the most critical features of three-dimensional assessments. What is the role of phenomena in assessments, and why does this matter?

Here's what our experts found:

1. If our goal for student learning is preparing students to make sense of the world around them and address problems, assessments have to actually ask students to make sense of phenomena and address problems.
2. The information about the phenomenon or problem—like the data, images, contextual language, etc.—plays a direct role in which science ideas and practices, and at what grade-level, students are cued to bring to the table.
3. Not all phenomena or problems are going to be inherently interesting to all students—but phenomena in assessment should be presented in a way that students clearly know why this is important and relevant.
4. Good phenomena-based scenarios problematize the phenomenon—in other words, scenarios present students with some kind of uncertainty and help students understand what they are supposed to be addressing and why.
5. If we want assessments to truly reveal what students know, students have to be motivated to engage in tasks—this means that to support diverse students, we need to make sure that the phenomena and problems we're asking students to engage with are compelling to the students who are seeing the task.

The annotated tasks highlight how task scenarios support student thinking and connect to the specific three-dimensional performances targeted in...
assessments, based on a complete list of features that are important for scenarios in assessments. These can help anyone interested in figuring out what to look for in high-quality science tasks.

In learning,
The Achieve Team

Share the suite of task resources and join our conversation on Twitter! Tell us what it looks like when assessments intentionally provide all students with the opportunity to show what they know and can do. Tag us in your response!

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Is your district or state looking for support in the design, selection, and implementation of science tasks for instruction and assessment?

Contact Our Team to Learn More

All students should graduate from high school ready for college, careers, and citizenship.

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