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Type of Formative Assessment	How to Use It
Gestures	One quick way to assess student understanding is with a thumbs-up or thumbs-down. A teacher might show different models and have students give a thumbs-up for which one they think best explains a concept in science.
Discussion	Listen as students discuss their ideas in a whole-class setting as well as in groups. A teacher can then ask further questions, such as “Why do you think that?” and “What evidence do you have for your claim?” to help guide them to ideas that are supported by scientific evidence. Sentence stems can help them share their current understanding or questions. (See Talk Formats p. 120; Monitoring Discourse p. 128.)
“I used to think . . . , but now I think . . . ”	Having students tell a teacher verbally or in text about what they used to think about a science idea and what they now think gives teachers insight into students’ understanding at a particular time.
Whiteboards	If each student or group has an erasable whiteboard, a teacher can have them draw models, write short explanations, or show connections between ideas they’ve learned. The teacher can look around the room and see the range of understanding in the class.
Cartoons	Have students draw a simple cartoon explaining the science concept that is included in their learning target. The teacher can quickly see how students understand the concept and provide extra help for those who are missing essential components of the idea.
Fist to Five	Ask students to hold up zero to five fingers based on how much they understand a science idea. Zero would mean that they feel uncertain about their own understanding or are confused, and five means that they understand the concept well and can explain it to others. The teacher can then provide opportunities for students to work together to support collective understanding of the idea.
Think-Pair-Share	Give students time to think about a problem and then have them share with a partner. Students are more likely to share in a small group, so the teacher has an opportunity to move around the classroom listening to many responses. A large-group discussion can happen afterward with the teacher asking probing questions to help students who have difficulty in communicating their understanding or have questions, or to sequence ideas from the small groups to build class understanding.
Fishbowl	Five or six students are selected to be in the center (fishbowl) of a circle. They discuss and argue their ideas about a probe given by the teacher while the rest of the class listens and evaluates what the students in the fishbowl are saying. The roles can be switched so that all students get a turn. Students can record the ideas that surface during the discussion for a writing activity afterwards. The teacher can use what the students in the fishbowl say to guide further instruction.
Phenomenon probes	A familiar phenomenon is shown to students and different explanations for the phenomenon are listed. Include possible preconceptions and some explanations that are not supported by evidence as choices. The teacher can plan on addressing those ideas during the lesson or unit.
Gallery walk	Students post their model, explanation, or results of a project or investigation on whiteboards or poster paper around the room. Everyone in the class evaluates each of the products by putting sticky notes with their thoughts on the displays. This could include ideas about the parts that were included in the model or explanation as well as what they thought were strengths or things that could be improved upon.
Exit ticket	A short application of what was learned in the lesson is given to students to complete at the end of the class. A teacher can look at the responses and plan for the next day depending on how well students can answer the question. Another purpose for exit tickets can be to get information from students about their experience with the task. This will help in designing future tasks.