

MATHEMATICS TEACHING PRACTICE 8:

Elicit and use evidence of student thinking

Effective teaching of mathematics uses evidence of student thinking to assess progress toward mathematical understanding and to adjust instruction continually in ways that support and extend learning.

Strategy and Process for Students with Disabilities	Digital Learning Experience
<p>Determining student progress toward learning goals</p> <ul style="list-style-type: none"> • Determine what prior knowledge or skills students need for a task. • Consider activating prior knowledge. Strategies may include: <ul style="list-style-type: none"> ◦ Warm up routines (Notice and Wonder, Which One Doesn't Belong, What is the Same/What is Different); ◦ Number talks; ◦ Text rendering strategies; ◦ Know/Want to Know/Learned/Apply (KWLA) charts; and ◦ Formative assessments. • Decide in the moment how to respond to students (probe, scaffold or differentiate). • Observe and analyze student work. Strategies may include: <ul style="list-style-type: none"> ◦ Increasing Opportunities to Respond; ◦ Module 4: Eliciting Evidence of Student Learning; ◦ Total participation techniques (e.g. quick writes); and ◦ A mock social media post that summarizes or represents a big idea. • Use peer and self-assessment. Strategies may include: <ul style="list-style-type: none"> ◦ Card sorts; ◦ Exit slips; ◦ Gallery walks; and ◦ Games. • Reflect on student progress to adapt instruction for student learning needs. 	<p>Digital tools for activating prior knowledge may include:</p> <ul style="list-style-type: none"> • Shared digital collaborative spaces; and • Virtual snapshot tools. <p>Digital tools for observation and analysis of student work may include:</p> <ul style="list-style-type: none"> • Uploading pictures of student work; • Interactive virtual whiteboards; • Desmos teacher/student activities; • Virtual manipulatives; and • Video or voice responses. <p>Digital tools for peer and self-assessment may include:</p> <ul style="list-style-type: none"> • Virtual reactions; • Physical gestures; and • Written posts.
<p>Determining how students will show what they know</p> <ul style="list-style-type: none"> • Identify what will provide evidence of student progress toward learning goals. • Provide opportunities for students to: <ul style="list-style-type: none"> ◦ Demonstrate their level of understanding; ◦ Monitor their own progress; ◦ Reflect on their thinking; and ◦ Take ownership of their own learning. 	<p>Digital tools for integrating academic dialogue may include:</p> <ul style="list-style-type: none"> • Features of virtual platform (chat, breakout rooms, featured speaker); • Video or voice capture responses; and • Shared slides, documents or virtual whiteboards.

Consider how to integrate academic dialogue. Examples include:

- Student interviews;
- Whole class discussions;
- Jigsaws;
- Carousel;
- Think, Pair, Share; and
- Kagan structures (numbered heads together, Round Robins, other appropriate selections).

Contact your special education regional cooperative for more information on using virtual tools and additional resources.

Reflection Questions

1. In what ways are students asked to demonstrate understanding? In what ways can this be adapted to address learning needs (e.g., providing structured recording sheets, manipulatives, sentence starters or other appropriate supports)?
2. In what ways might you support a student's ability to demonstrate, say or write strategies or solutions?
3. What representations and strategies will make student thinking visible to the teacher and to other students?
4. How does this information impact our teaching in the moment and going forward?

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