

Consider using these three tenets of differentiation when planning a mathematics lesson to support the diverse needs of students during small-group instruction.



Provide multiple means of **ENGAGEMENT**

How can I engage and motivate all students in my class?

- In what ways do I give students choice and autonomy? 7.1
- How do I minimize threats and distractions? 7.3
- In what ways do I develop selfassessment/reflection? 9.3

Examples:

- Allow students to have a choice of the fluency activity that would challenge and engage them.
- Provide students with a visual schedule of how many word problems will be modeled by the teacher, solved with a peer, and completed independently.
- Allow students to choose an emoji to represent how they felt during math.



Provide multiple means of **REPRESENTATION**

How can I present information in ways that reach all learners?

- How do I clarify vocabulary and symbols? 2.1
- In what ways can I activate or supply background knowledge? 3.1
- How do I support students ability to generalize and transfer their learning to new contexts? 3.4

Examples:

- Explicitly pre-teach math vocabulary and symbols at the start of a mathematics lesson.
- Ensure every mathematics lesson begins with prior knowledge task or activity warm up.
- Teach students to use an attack strategy (such as UPS Check) to solve word problems.

Provide multiple means of **ACTION** and **EXPRESSION**

How can I offer purposeful options for students to show what they know?

- Do I optimize student access to tools and assistive technologies (AT)? 4.2
- In what ways can I use multiple media for communication? 5.1
- How do I enhance students capacity for monitoring progress? 6.4

Examples:

- Provide students with access to virtual and concrete manipulatives.
- Use visual media (such as twodimensional pictures and graphs) for pictorial representations when bridging concrete-pictorial-abstract together.
- Allow students to self-graph math progress and set new goals based on self-graphed progress.



CAST (2018). Universal design for learning guidelines. Wakefield, MA: Author.