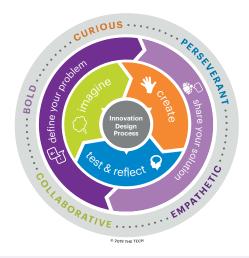# TECH TIP: Innovator Mindsets

Fostering Innovator Mindsets enables learners to become creative problem-solvers. These five primary mindsets build confidence in skills that extend beyond the classroom and can be especially valuable to students from populations traditionally underrepresented in STEM careers. As learners move through the Innovation Design Process, these mindsets are practiced repeatedly and reinforced through student personal reflection and modeling by the educator.

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BOLD
Innovators often take risks when creating and testing new and innovative solutions. Learning environments that encourage risk taking helps every learner develop leadership skills, to have their ideas heard in the classroom and in the careers they pursue.

CURIOUS
Innovators are curious about how things work, how they can create new solutions and improve the lives of others. Their curiosity drives them to try many different solutions to a problem. Practices that encourage learners to wonder, observe, question and be open to other perspectives encourages curiosity.

PERSEVERANT
Innovators require perseverance to learn from numerous failures as they prototype, test, observe failure points, iterate and test again. Celebrating learning from failures, rewarding effort, and honoring process, as well as product, helps build and reinforce learner perseverance and identity as a problem-solver.

EMPATHETIC
The ability to understand the feelings and challenges of others leads Innovators towards designing solutions that can effectively serve the intended audience or end user. Reflective questions, protocols and tools that guide learners to observe, communicate with others, and self-assess help to build empathy.

COLLABORATIVE
Innovators are most effective when they work on diverse teams to create solutions and are often responsible for a small part of a bigger project. Modeling, practicing and reflecting on interpersonal skills such as active listening, negotiation, and building consensus helps learners become strong collaborators.

HOW TO TEACH THESE MINDSETS?

Innovator Mindsets can be modeled via embedded facilitation practices, such as asking questions to foster curiosity (e.g., What do you wonder? What do you notice?). Explicit teaching and reflection are also needed for students to fully integrate and identify with these Mindsets.

Explicit Education
- Lead a discussion during which your learners discuss and define the mindsets for your learning setting.
- Actively note when you observe Innovator Mindsets in practice as learners work to solve a problem.
- Provide visual references, such as a poster, that includes sentence starters. (e.g., To encourage active listening, "I heard you say _____. Is that right?")

Reflecting on the Mindsets
- We measure what we value! Provide students with opportunities to recognize and note growth in these areas.
- Have students complete self-evaluations at the beginning and end of each engineering unit or school year so you can capture changes in mindsets.
- The self-reflection sheet can be done at the end of a lesson or week so that students can reflect on their mindsets and be prepared to push themselves next time.
- Having students document their reflections in a journal or use the mindsets self-reflections weekly during a unit or session can help students map their growth over time.

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	Not sure	Rarely	Sometimes	Often	All the time
BOLD					
I make sure my ideas are heard.					
I'm not afraid to share and try out an idea or solution no matter how crazy it might seem.					
CURIOUS					
If I don't know something, I figure out a way to learn more.					
I wonder how things work.					
PERSEVERANT					
I like to work on problems that aren't easy to solve.					
If I don't solve a problem the first time, I just keep trying until I get it right.					
EMPATHETIC					
I value others and take time to listen to what they have to say.					
I like to understand why others have different opinions.					
COLLABORATIVE					
Having all teammates contribute matters to me.					
I stand up for myself without putting others down.					
I think my teammates can help make our solution better.					

For Tech Tip facilitation videos, visit **thetech.org/resources**.

	Area of strength?	Today I did this and it looked like:	Next time I want to try:
BOLD			
CURIOUS			
PERSEVERANT			
EMPATHETIC			
COLLABORATIVE			