







# When You Say... They Think...



A chart to help communicators understand why some public-facing messages about connected STEM learning environments **backfire**

<p><b><u>When you say...</u></b> </p> <p>When children learn STEM in an informal setting—like a museum, summer camp, or at home—they can pursue their interests and develop skills without worrying about grades or tests, and have fun.</p>	<p><b><u>They think...</u></b> </p> <p>This sounds good—like a nice extra. The most critical learning still takes place in the classroom though.</p> <p><b><u>What's triggered in their minds?</u></b></p> <ul style="list-style-type: none"><li>• Informal learning isn't serious, but it helps break up the routine.</li><li>• The purpose of informal learning is to give kids an "extra dose" of what they're taught in school.</li></ul>	<p><b><u>What helps?</u></b> </p> <p>Use the <b>Wiring</b> metaphor to paint the public a vivid picture of how interconnected learning environments energize ALL learning, everywhere. Provide concrete examples of how classroom activities can be prefaced, enhanced, or reinforced in informal settings—and how STEM skills can be transferred and applied across many different environments.</p>
<p><b><u>When you say...</u></b> </p> <p>Some children are more likely to have opportunities for connected STEM learning than others. Every child should have access to things like integrated afterschool programs, community gardens, and coding clubs that help them learn STEM.</p>	<p><b><u>They think...</u></b> </p> <p>Not every kid has an aptitude for science, and not all kids grow up to be engineers, so they don't all need to have advanced skills in subjects as complicated as STEM.</p> <p><b><u>What's triggered in their minds?</u></b></p> <p>STEM subjects are specialized and only appropriate for advanced students.</p>	<p><b><u>What helps?</u></b> </p> <p>Use the <b>Opportunity for All</b> value to orient public thinking towards the fact that universal participation in STEM not only taps the unmet potential of previously excluded groups—it strengthens the rigor of education programs, expands the number and quality of available opportunities, and improves learning outcomes for everyone.</p>



### When you say...



Right now, some children are being left behind when it comes to STEM skills. We need to invest in programs that connect formal and informal learning environments to ensure every child succeeds.

### They think...



This will probably help fill in the gaps—especially for schools that have unskilled or disengaged teachers. But success in education is ultimately up to the family and the individual. If a child is determined to learn STEM and his parents are committed to seeing him do well, he will—regardless of the circumstances.

### What's triggered in their minds?

- Education outcomes are solely a reflection of individual choices and behaviors on the parts of teachers, kids, and parents.
- Kids learn about different things in different places.

### What helps?



Use the ***Charging Stations*** metaphor to explain how disparities in STEM learning are the result of patchy infrastructure—and how better connected STEM learning environments would benefit all.

### When you say...



The creative use of educational technologies can connect learning environments and help broaden STEM learning opportunities beyond the classroom.

### They think...



Teachers have a hard enough time getting kids to stay focused as it is, and school administrations already have their hands full without needing to plan additional extracurricular activities.

### What's triggered in their minds?

- What matters more than where children learn is who they learn from.
- Technology is a distraction from learning, and often socially isolating.

### What helps?



Highlight ways that connecting STEM learning environments through technology can support, rather than detract from or complicate, the work of teachers and schools. Cite examples of technology-use across different environments that keep kids interacting with one another and engaged.