

Fact Sheet

AFTERSCHOOL: TIME TO FOSTER FLUENCY IN SCIENCE, TECHNOLOGY, ENGINEERING & MATH

Given our complex and changing world, America needs today's students to be critical thinkers who can tackle modern challenges. Learning in science, technology, engineering and math—the subjects called “STEM”—builds the knowledge and skills needed to tackle problems systematically. STEM helps to build the ability to sift through information, draw reasonable conclusions, make decisions based on evidence, and come up with creative solutions.

Afterschool time is an important resource in ensuring that all U.S. students have a command of STEM. Just as people need to be immersed in real-world situations to learn a language, children and youth need to explore STEM in their everyday lives to become fluent in these subjects.

A recent National Research Council report highlighted the “effectiveness factors” that distinguish high-quality afterschool STEM programs. Among other things, the most effective programs engage young people intellectually, academically, socially and emotionally, weaving these aspects of learning together as if they were strands of a rope. And, since they recognize that this kind of weaving takes time, they offer sustained experiences over time. With consistent opportunities to do the kinds of things STEM professionals do—like pose questions, set up experiments or simulations, and make sense of raw data—learners can develop the strong critical thinking and problem-solving skills needed today. The flexibility of programs offered afterschool, on weekends, or in the summer lets kids practice these skills in a relaxed environment, mentored by supportive adults.

Frequency Fosters Fluency

A recent study compared 4th-graders who were involved almost daily in hands-on science with those who only got a chance to participate once or twice a month. Since STEM concepts are learned best through multiple exposures, the results aren't surprising: the students who were immersed in science had more advanced fluency than those with fewer touch-points. By expanding regular programs to areas that don't have them, and by intentionally connecting more kids to the opportunities that already exist, we can increase our nation's level of STEM fluency.

WHAT DOES THIS LOOK LIKE?

Turn the page to see a great example of an engaging afterschool STEM program!

We need more engaging settings for students to immerse themselves in, especially in STEM. Nationwide, for every child in an afterschool program, there are two more waiting to get in. Learn more about proposals to strengthen the network of engaging afterschool STEM opportunities at afterschoolSTEMhub.org

[CUSTOMIZABLE AREA FOR USERS TO
ILLUSTRATE AN ENGAGING PROGRAM,
AND EXPLAIN HOW THE LEARNING ACTIVITIES
LEAD TO DESIRABLE STEM OUTCOMES.]