



## Importance of STEM Education for Children

"... Leadership tomorrow depends on how we educate our students today—especially in science, technology, engineering and math."

— President Barack Obama, September 16, 2010<sup>1</sup>

### The STEM Crisis

The United States is losing its competitive edge in math and science while the rest of the world soars ahead.

STEM education is essential and must take place for our country's student performance to improve in order for the U.S. to remain the economic and technological leader of the global marketplace of the 21<sup>st</sup> century.<sup>2</sup>

### How is the U.S. Doing in STEM Education?

"Only one in five STEM college students felt that their K–12 education prepared them extremely well for their college courses in STEM."<sup>3</sup>

"Only one out of five households has access to and takes advantage of STEM-related after-school programming."

"In almost every state, children will get less time for science in elementary school than they did 15-20 years ago."<sup>4</sup>

### The Need for STEM Education

U.S. students recently finished 25<sup>th</sup> in math and 17<sup>th</sup> in science in the world compared to 31 other countries.

By 2009, for the first time, over half of U.S. patents were awarded to non-U.S. companies because STEM shortcomings are forcing a hold on innovation.<sup>5</sup>

### The Need for After-School STEM Programs

Schools cannot tackle the STEM issue by themselves - children spend less than 20% of their waking hours in school. After-school programs offer both additional time and the opportunity to diversify the ways that students experience STEM learning.

After-school programs complement and supplement school-day learning and are well positioned to engage and motivate participants.<sup>6</sup>

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<sup>1</sup> [Department of Education](#)

<sup>2</sup> [National Math + Science Initiative](#)

<sup>3</sup> [Microsoft STEM Survey](#)

<sup>4</sup> [Change the Equation](#)

<sup>5</sup> [Department of Education](#)

<sup>6</sup> [Afterschool Alliance](#)