



## Out-of-School Time STEM Talking Points

### 1. Preparing the problem solvers of tomorrow

As a society, it is our job to ensure that the future is in good hands. Our young people all deserve equal opportunities to develop into successful citizens and leaders. A stimulating STEM education is essential for developing the basic analytical, problem-solving, and critical thinking skills so that our youth will be ready to thrive and succeed in the 21st century.

### 2. STEM skills are needed urgently

The majority of future careers will require some STEM skills. Here in Vermont, we will see an 18% increase in STEM jobs in the next four years alone, with 87% of these jobs requiring postsecondary education & training.<sup>1</sup> Research shows that early engagement and sustained opportunities throughout a child's development will yield greater success in STEM fields.<sup>2</sup>

### 3. Out-of-school time programs are a great to practice STEM

Out-of-school time programs are well positioned to complement and supplement school-day learning with experiences outside of the classroom. These programs—such as afterschool and summer—give youth the opportunity to explore STEM topics in a fun, hands-on, inquiry-based environment. Without the constraints of standardized testing or grading, kids can enjoy more freedom and flexibility to dive deeper in STEM subjects that spark their interests.

### 4. High-quality out-of-school STEM programs produce positive outcomes

Studies have also shown that high-quality afterschool STEM programs impact youth in incredibly valuable ways.<sup>3</sup> Students demonstrate increased STEM knowledge and skills; increased critical thinking and communication skills; and increased confidence and empowerment to practice STEM. Afterschool STEM programs support literacy skills by encouraging a culture of information sharing, writing and diagramming ideas, and inspiring lively discussions about discoveries or creations.

### 5. All youth deserve access to enriching STEM learning opportunities

Quality STEM afterschool and summer programs play an important role in STEM learning and career awareness for underrepresented and underserved populations (such as girls, minorities, and rural communities) who participate in afterschool in greater numbers.<sup>4</sup>

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<sup>1</sup> Georgetown University Center on Education and the Workforce. (2011). *STEM*.

<sup>2</sup> Afterschool Alliance. (2011). *STEM Learning in Afterschool: An Analysis of Impact and Outcomes*

<sup>3</sup> Ibid.

<sup>4</sup> Krishnamurthi, A., Ottinger, R., Topol, T. (2013). *STEM Learning in Afterschool and Summer Programming: An Essential Strategy for STEM Education Reform*.