

STEM LEARNING PREPARES YOUTH FOR THE FUTURE

“Learning in science, technology, engineering, and math (the subjects collectively known as STEM) help students succeed in school and prepares them for careers that are driving global economic growth.”¹

STEM IS GROWING



Half of all STEM jobs are available to workers without a four-year college degree. These jobs on average pay \$53,000, which is 10% higher than non-STEM jobs similar educational requirements. Half of STEM jobs are in manufacturing, health care, and construction industries.²

Employment in STEM has grown much faster than in other areas over last decade and is projected to continue to outpace growth in other occupation areas.³ STEM jobs are projected to grow 8.9% from 2014 to 2024, compared to 6.4% growth for non-STEM occupations.²

YOUTH WILL NEED STEM SKILLS

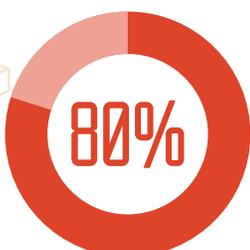


Sixty-five percent of children entering primary schools today will ultimately work in new job types and functions that currently don't yet exist.⁴

Top 10 Skills Needed in 2020⁴

1. Complex problem solving
2. Critical thinking
3. Creativity
4. People Management
5. Coordinating with others
6. Emotional intelligence
7. Judgment and decision making
8. Service orientation
9. Negotiation
10. Cognitive Flexibility

STEM LEARNING NEEDS TO START EARLY



Eighty percent of students in STEM afterschool programs said their STEM career knowledge increased because of their afterschool experience.¹

“Creating a positive learning environment that empowers students in STEM is critical to preparing the next generation for the future... The necessity for STEM to be introduced at an early age has never been more important. Action needs to be taken on behalf of parents, educators, and business leaders to make sure this comes to fruition.”⁵

References

- 1 - *Afterschool Learning is a Powerful STEM Solution*. (2016).
- 2 - Rothwell, J. (2013). *The Hidden STEM Economy*. Washington, D.C. Retrieved from <https://www.brookings.edu/wp-content/uploads/2016/06/TheHiddenSTEMEconomy610.pdf>
- 3 - Noonan, R. (2017). *STEM jobs: 2017 update*. Office of the Chief Economist, Economics and Statistics Administration, Washington, D.C. Retrieved from <http://www.esa.doc.gov/reports/stem-jobs-2017-update>
- 4 - Global Agenda Council. (2016). *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*. Growth Strategies. <https://doi.org/10.1177/1946756712473437>
- 5 - Oberoi, J. (2016). The Economic Impact of Early Exposure to STEM Education. Retrieved July 12, 2017, from <https://www.ced.org/blog/entry/the-economic-impact-of-early-exposure-to-stem-education>