



## Four Ways Girl Scouts Builds Girl Leaders in STEM

Girl Scouts' mission is to build girls of courage, confidence, and character who make the world a better place. Since 1912, girls have explored, developed, and sharpened their science, technology, engineering, and math (STEM) skills through Girl Scouting. They lead their own adventures, team up with others, and get busy with hands-on STEM activities of their choosing. Guided by supportive adults and peers, girls discover their talents and grow by taking healthy risks in a safe and supportive all-girl setting. Today, Girl Scouts is, as it always has been, the organization best positioned to help girls develop important STEM competencies they need to become the next generation of female leaders—and to change the world in big and small ways!

### When girls participate in Girl Scout STEM programs, they benefit in four important ways:

#### **STEM Interest**

Girls are excited about STEM subjects and want to learn more about them.

#### **STEM Confidence**

Girls have confidence in their STEM skills and abilities.

#### **STEM Competence**

Girls think scientifically to solve problems.

#### **STEM Value**

Girls learn the importance and relevance of STEM to people and society.

# Why do these four STEM outcomes matter?

STEM pervades every part of our lives:

- Scientists conduct research and make discoveries that help us learn more about the world.
- Technology, like computers and smartphones, connects people and makes our lives easier.
- Engineers design and create so much of our environment, from buildings to roads to electronics.
- Math helps us make sense of information, understand how things work, and solve problems in the world.

Women and girls, however, are underrepresented across all levels of the STEM pipeline. From their initial interest in STEM as a child to majoring in a STEM subject in college to pursuing a STEM career as an adult, this gender disparity needs to change at every stage of girls' and women's STEM engagement. Studies show that:

- Girls and boys do not differ in their math and science abilities but do differ in their interest and confidence in STEM subjects.<sup>1</sup>
- As early as second grade, youth agree that “math is for boys, not girls.”<sup>2</sup>
- Women are less likely than men to earn a bachelor's degree in engineering, computer science, and physics.<sup>3</sup>
- Although women make up more than half the U.S. workforce, they comprise less than a quarter of STEM jobs, with the greatest disparities occurring in engineering and computer science.<sup>4</sup>

## The Girl Scout Difference

Girl Scouts provides countless opportunities for young girls to jump into STEM and explore their interests and passions with fun, challenging activities like building robots, designing apps and video games, and collecting data to help scientists protect the environment. Because interest in STEM begins in early childhood (between the ages of five and ten<sup>5</sup>), Girl Scouts' “fun with purpose” K–12 curriculum helps bridge the gender gap by ensuring that girls of every age have opportunities to participate in progressive, multiyear STEM experiences. Indeed, girls who participate in Girl Scout STEM programs become more confident in their math and science abilities and more interested in STEM subjects and careers.<sup>6</sup>

For more than a century, Girl Scouts has been preparing girls for a lifetime of leadership. Today and always, we are committed to ensuring that all girls develop to their full potential and have equal access to and support in STEM education.

<sup>1</sup> National Girls Collaborative Project. (2016). [The State of Girls and Women in STEM](#).

<sup>2</sup> Cvencek, D., Meltzoff, A., & Greenwald, A. (2011). Math-Gender Stereotypes in Elementary School Children. *Child Development*, pp. 766–779.

<sup>3</sup> National Science Board. (2016). [Science and Engineering Indicators 2016](#). Arlington, VA: National Science Foundation (NSB-2019-1).

<sup>4</sup> U.S. Department of Commerce. (2011). [Women and STEM: A Gender Gap to Innovation](#).

<sup>5</sup> McClure, E. R., Guernsey, L., Clements, D. H., Bales, S. N., Nichols, J., Kendall-Taylor, N., & Levine, M. H. (2017).

[STEM starts early: Grounding science, Technology, engineering, and math education in early childhood](#).

<sup>6</sup> Girl Scout Research Institute. (2016). [How Girl Scout STEM Programs Benefit Girls](#).