



National Inventors
Hall of Fame®

FOSTERING INNOVATION IN THE NEXT GENERATION

Innovation and ingenuity are key to technological advancement and scientific discovery in the modern global economy, and at the National Inventors Hall of Fame® (NIHF), we believe every child can invent. NIHF's PreK-8 STEM programs, Camp Invention®, Club Invention® and Invention Project®, encourage children to exercise and strengthen essential skills and traits that will guide them to unlock their potential and their own innate creativity.



“

That's the kind of thing I'm trying to pass along — just a curiosity and a sense for discovering answers to questions. ”

— **Mick Mountz**, 2022 National Inventors Hall of Fame Inductee, co-inventor of robotic warehouse fulfillment systems

EDUCATOR COMMENTS

*“Bringing together different age group campers with middle and high school counselors and Instructors is such a meaningful opportunity to extend community building and remind kids of all who support and care about them. **The premise of STEM and 21st-century learning in such concentrated form is incredible!**”*

— Hampton, NH

*“Every year I get to see students engage using their creativity of their brain and [collaborate with] their peers. **These are all great life lessons that I think our children need for academic and social-emotional growth.**”*

— Montgomery, TX



EMPLOYABILITY SKILLS WILL DRIVE SUCCESS IN THE MODERN WORKFORCE

As we prepare children for jobs we cannot yet predict, our youth need to develop skills and a mindset beyond the technical aspects of specific jobs and industries.

While social-emotional learning and skills such as empathy, collaboration, communication, critical thinking, cultural competence and problem solving rank high among the most critical to the modern STEM workforce, only 11% of prospective employers have an easy time finding employees with these skills.¹

Through open-ended, hands-on exploration, NIHF's PreK-8 STEM programs help children build an Innovation Mindset™ — a growth mindset infused with lessons from world-changing inventors — to enable and empower them in any area of life.

Just one week of Camp Invention results in significant short-term and long-term improvements in creativity, STEM interest, collaboration and problem solving.

PARENT COMMENTS

*"My daughter absolutely loved this STEM camp. She was excited to be there every day, and she made friends. She is a total science buff and now shows interest in a career in engineering. She likes to be involved and keep busy, and Camp Invention definitely did that for her. **We couldn't be more pleased with the outcome!**"*

- Mesa, AZ

*"My two children were granted scholarships for which we are very grateful. This would have been beyond our financial means otherwise. They started the week a little apprehensive, but finished strong and excited to show off their new inventions to anyone and everyone. **Thank you so much for encouraging STEM in rural communities.**"*

- Caro, MI



EXPOSURE TO DIVERSE PERSPECTIVES CREATES EQUITABLE OPPORTUNITIES

Diverse perspectives are needed to solve the world's biggest challenges. To support greater representation in STEM fields, the next generation of innovators needs to see themselves when they look at individuals who are making a difference.

Children from low-income families, girls and minorities are less likely to have such exposure.

Research has found that if women, minorities and individuals from low-income families were to invent at the same rate as white men from high-income (top 20%) families, the rate of innovation in America would quadruple.²

Exposure to diverse innovators as role models will help close these gaps by cultivating a relatable link between children and STEM, guiding them to see STEM career paths as viable paths for individuals like them. NIHF's STEM programs connect children across the country with real-life innovators of diverse backgrounds — NIHF Inductees.



OUT-OF-SCHOOL PROGRAMS ARE KEY TO SPARKING INTEREST IN STEM

National research shows over 70% of participants in afterschool STEM programs exhibit increased interest in and knowledge about careers in science.³

Expanding these learning opportunities is key to keeping children interested in math and science as they go into middle school⁴ and later consider careers in STEM⁵.

Students with multiple Camp Invention experiences show higher gains in creativity, STEM interest and problem solving than those with limited or no previous experience.⁶

In addition, students who participate in the program demonstrate improved in-school attendance, increased GPA and better test scores⁷, helping reduce key achievement gaps on a student's path toward college readiness.

¹STEM Connector. (2018). *Employability Skills & Mindsets*. Postsecondary pathways innovation Lab.

²Bell, A., Chetty, R., Jaravel, X., Petkova, N., & Reenen, J. V. (2018). *Who Becomes an Inventor in America? The Importance of Exposure to Innovation*. Opportunity Insights. https://opportunityinsights.org/wp-content/uploads/2019/01/patents_paper.pdf

³After School Alliance. (2018). *This is Afterschool - Inspiring Students to Learn Helping Them Make Smart Choices, and Giving Parents Peace of Mind*. http://afterschoolalliance.org/documents/factsResearch/This_Is_Afterschool_2018.pdf

⁴Beymer, P., Rosenberg, J., Schmidt, J., & Naftzger, N. *Examining Relationships among Choice, Affect, and Engagement in Summer STEM Programs*. Journal of

Youth and Adolescence, 1178–1191. <https://pubmed.ncbi.nlm.nih.gov/29356926/>

⁵Will, M. (2019, February 20). *Early-Grades Science: The First Key STEM Opportunity*. <https://www.edweek.org/ew/articles/2018/05/23/early-grades-science-the-first-key-stem-opportunity.html>

⁶Falk, J., & Meier, D. (2018). *Camp Invention 2017-2018 Pilot Study Report*. The National Inventors Hall of Fame. https://www.invent.org/sites/default/files/2020-10/ILI_Final_Report_Camp_Invention.pdf

⁷Hosler, L. (2019). *Measurable Impacts of Two Decades of Invention Education by the National Inventors Hall of Fame*. Technology and Innovation, 20, 333–336. <https://search.proquest.com/openview/509a979ddb47c2e330d63498ecbe34ee/1?pq-origsite=gscholar&cbl=2043274>