

STEM Starts at Home Initiative

A hands-on invention and innovation **STEM** workshop facilitated by an educator from 4wardInnovation organization, experienced in the **NASA HUNCH Program**, utilizing the engineering design process through interactive activities.



Parents collaborated in teams to explore innovation, creativity, and problem-solving through real-world STEM concepts. They engaged in the engineering design process, and the teams presented their inventions to the class, encouraging communication, teamwork, and creative thinking.

In this interactive “train-the-trainer” model, parents gained practical tools and knowledge that equipped them to engage their children in problem-solving activities at home.

This powerful family engagement model demonstrated that when parents are equipped with the proper knowledge, resources, and encouragement, they can become active educational partners who help empower their children to succeed both academically and personally.



Why This Matters

STEM Starts at Home is helping build a sustainable ecosystem of family learning within the communities it serves. By equipping parents with STEM knowledge and practical problem-solving tools, the initiative helps bridge the gap between parents wanting to support their children academically and not knowing how to effectively guide them through educational challenges.

When parents model curiosity, creativity, and innovation, children become motivated and confident learners. This family-centered approach helps prepare students for future academic success while strengthening workforce readiness for the rapidly evolving future of science, technology, engineering, and innovation.

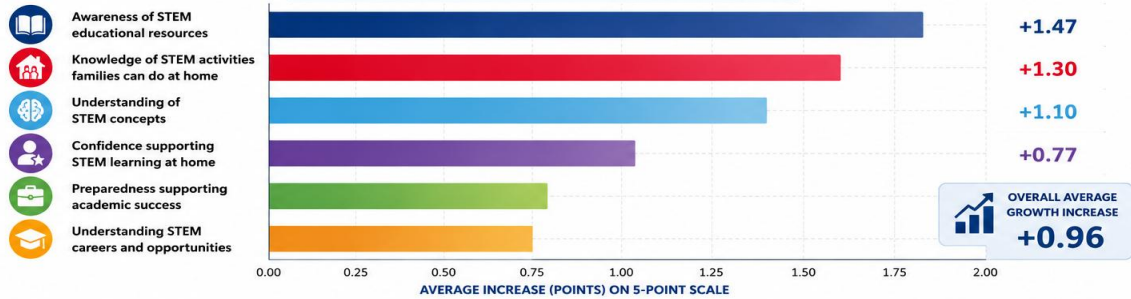
Impact



MEASURABLE PROGRAM OUTCOMES

Parent Growth from Pre- to Post-Program Surveys

Pre- and post-program survey data demonstrated measurable increases in parent understanding, confidence, and engagement related to STEM education and family learning.



OUTCOME AREA	PRE-PROGRAM AVERAGE (OUT OF 5)	POST-PROGRAM AVERAGE (OUT OF 5)	GROWTH (AVERAGE INCREASE)	% IMPROVEMENT
Awareness of STEM educational resources	2.68	4.15	+1.47	54.9%
Knowledge of STEM activities families can do at home	2.91	4.21	+1.30	44.7%
Understanding of STEM concepts	3.12	4.22	+1.10	35.3%
Confidence supporting STEM learning at home	3.35	4.12	+0.77	23.0%
Preparedness supporting academic success	3.26	3.84	+0.58	17.8%
Understanding STEM careers and opportunities	3.04	3.60	+0.56	18.4%

★ These results reflect the impact of our family-centered "train-the-trainer" model, empowering parents to build brighter futures for their children through STEM!

KEY FINDINGS

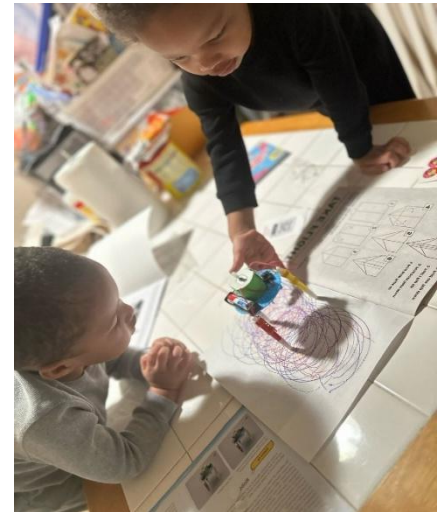
- Parents demonstrated the greatest growth in awareness of STEM educational resources.
- Families reported increased knowledge of STEM activities they can do at home.
- Survey data reflected stronger understanding of STEM concepts and future STEM career pathways.
- Parents gained confidence and practical tools to support STEM learning and academic success at home.
- Program outcomes show the power of equipping parents as active partners in their children's education.

To measure impact, Parents Step Ahead implemented bilingual pre- and post-program surveys utilizing QR-code-based digital data collection systems developed specifically for the initiative.

The initiative collected:

103 pre-program surveys **97 post-program surveys**

One of the strongest outcomes revealed a significant increase in parents' awareness of where to access STEM educational resources, highlighting the importance of community-centered family STEM programming.



Partnership Opportunities

Parents Step Ahead is seeking corporate and community partners interested in expanding family-centered STEM education opportunities throughout North Texas communities.

Partnership support helps:

- expand STEM access for families
- strengthen parent engagement
- support academic achievement
- promote workforce readiness
- encourage innovation and creativity
- inspire future STEM leaders

Contact



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Your investment helps create a sustainable ecosystem of STEM learning within our communities; equipping parents, inspiring children, and strengthening the pipeline of future innovators who will shape tomorrow's world.