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CASE STUDY

HOW ONE MUSEUM CREATED THEIR GIRLS IN STEM PROGRAM–POWERED BY TECHBRIDGE GIRLS

Ft. Worth Museum of Science & History x TBG

As museums, we often prioritize mornings for school groups and underutilize time in the afternoons. If you're looking to start or augment your afternoon programming and provide spaces of belonging for girls and gender-expansive youth, turn to Techbridge Girls. This case study is designed to share how Fort Worth built their new program, now three years in the making.

Overview

The Fort Worth Museum of Science & History is located in the cultural district of Fort Worth, Texas. Founded in 1945 as the Fort Worth Children's Museum, the museum now welcomes 270,000 visitors each year with attractions including the Noble Planetarium, the Omni Theater, and traveling and permanent science and history exhibits.

Piloted in the Spring of 2023, the Girls in STEM program with Techbridge Girls (TBG) training, curriculum, and STEM materials, the museum began offering out-of-school time STEM classes.

This program builds on existing programs and the museum's strengths: the Museum School has been running for 75 years and counting, offering educational programs for children up to age 6, and the museum also offers a STEM Squad feeder program for K-4th grade students.

> "When we heard the age range, we were thrilled because it meant we could focus on our girls. We see girls in all our Museum School and STEM Squad classes, from dinosaurs to engineering, and having a program that builds on STEM Squad just for them is truly exciting."
>
> **Dee Dee Mackey, STEAM Programs Manager**

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The Program

The Fort Worth Girls in STEM program offers after-school classes for 3rd to 5th grade girls (including non-binary students and the occasional boy - all are welcome!) during the fall and spring semesters. The program uses the Techbridge Girls "Ignite" curriculum for the fall semester and the "Inspire" curriculum for the spring. The class has two teachers and 30 participants per semester, with enrollment currently capped at 15 students per class session. Most participants come from Title 1 schools. Many students attend both semesters. **There is always a waitlist.**

Classes are offered from 4 - 5:30pm with sessions offered on Tuesdays and Thursdays, and most classes are fully attended. "Even when class fell on Halloween," says Mackey, "Our girls didn't miss a beat."

Techbridge Girls supplies the curriculum and the kits; the museum provides space, extra materials, and snacks; and parents provide transportation. The biggest costs for the museum are for staffing, followed by funding for Family Museum Nights, snacks, and T-shirts, and extra materials (lesson materials are included in the TBG kits, and some supplies, like drones, can be reused for multiple sessions).

> "We always get questions from our parents wishing there were more ways to extend our STEM learning programs. It's always on our mind. How can we serve a larger audience with the resources that we have? Techbridge Girls is answering that need."
>
> **Amber Shive, VP of Education, Ft. Worth Museum of Science and History**

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> "It's amazing to be able to offer high-tech lessons and activities with the resources provided by Techbridge Girls."
>
> **Dee Dee Mackey**

Lessons Learned

Innovation & Augmentation

The museum incorporates the Girls in STEM classes into Family Museum Nights, and recently partnered with the Young Women's Leadership Academy to bring students to watch the Blue Origin space launch in the museum's digital dome theater. By holding the program in the museum, says Mackey, "we can use what we're known for" and make our own unique additions to TBG's curriculum.

Location & Museum Experiences matter.

For the pilot program, the museum offered after-school classes at a local school. They quickly realized that the program would be more effective if held in the museum: the museum's exhibits serve as a built-in field trip, and the programs can be extended to more students. Now, the program serves students from six schools, along with several home-schooled students.

Transportation is a major challenge

Currently, the museum depends on parents to drop off and pick up their children. One takeaway: Mackey has found that schools' Family Communication Liaisons are helpful in arranging transportation, since they have a direct line to parents.

Culturally-responsive learning

Buy-in for culturally-responsive learning has been strong. "We've had a lot of support," says Shive. "Everyone thinks it's fantastic."

T-shirts recruitment, pride, belonging

T-shirts were a surprise hit. "Once we had the T-shirts, word spread quickly," says Mackey.

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Impact

Techbridge Girls is sparking lasting change in how girls see their futures in STEM. Through programs like Girls in STEM, participants leave not just excited about science, but motivated to take the next step, like choosing STEM electives in middle school. Families are noticing too. One parent shared, “My daughter asked for a microbit for Christmas.” That kind of enthusiasm shows our programs ignite curiosity, build confidence, and influence real choices that shape tomorrow’s innovators.

INVEST IN BRILLANCE.

To find out more, visit the Techbridge Girls website or email us at info@techbridgegirls.org.

Techbridge Girls

Techbridge Girls (TBG) is a national nonprofit transforming STEM education so all girls, especially Black, Latina, Indigenous, and gender-expansive youth, see themselves as leaders and innovators. Celebrating 25 years, TBG equips educators with joyful, culturally relevant programs that build girls’ confidence and brilliance. With a systemic approach across classrooms and communities, we are expanding opportunity and rewriting the STEM narrative for the future. Join us!

Ft.Worth Museum of Science and History

The Fort Worth Museum of Science and History, founded in 1941, is accredited by the American Alliance of Museums and is a Smithsonian Affiliate. The museum brings science and history to life through exhibits and programs that highlight Texas and the Southwest. With interactive workshops and immersive experiences, it inspires curiosity and learning for all ages. Learn more at www.fwmuseum.org or contact Amber Shive (VP of Education) at AShive@fwmsh.org or Dee Dee Mackey (STEM Program Manager) at dmackey@fwmsh.org.

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