The Big Picture

In 2005, Twin Cities PBS (TPT) created SciGirls®, a multiplatform science, technology, engineering and math (STEM) education program that is changing how millions of girls (and boys!) think about, engage in and pursue STEM studies and career paths. This innovative program integrates Emmy Award-winning television, online games and hands-on activities to drive STEM curiosity and learning.

TELEVISION

At the heart of SciGirls is a national PBS television series targeting girls between the ages of 8 and 13. Each half-hour episode follows a different group of real girls mentored by a dynamic female STEM professional. Over 46 million viewer impressions to date!

WEB

The SciGirls website is the first safe social network for children on PBS and includes videos, games and opportunities for youth to engage in STEM monthly challenges and activities. PBS Kids’ video app garners over two million views per month!

OUTREACH

The SciGirls CONNECT educational outreach network includes 204 partner organizations in 35 states and the territory of Puerto Rico. SciGirls has trained over 3,300 educators, working with 82,000+ diverse, young people in urban and rural areas nationwide.

SCIGIRLS SEVEN

Strategies for Engaging Girls in STEM

Our approach is grounded in culturally-responsive, research-based strategies that motivate girls around STEM engagement, including collaboration, creativity, the development of intellectual tenacity, role modeling and more. This quarter-century of research, called the SciGirls Seven, forms the foundation of all SciGirls media content and activities. With the support of the National Science Foundation, TPT is updating these strategies with the latest research. The new strategies will debut in 2019.
How It Works

Since 2011, SciGirls CONNECT has built a network of empowered professionals dedicated to inspiring more girls to pursue STEM study and careers.

Girl-serving organizations nationwide apply to become a SciGirls partner organization.

A certified SciGirls Trainer provides a face-to-face training in media-enhanced STEM education and role modeling strategies at the partner site. Partner organizations receive a $200 stipend to support staff and programming at their site. Partner organizations invite internal staff as well as other educators in their communities to participate in the training.

Trained staff and educators develop and implement SciGirls programs to inspire the next generation of STEM innovators.

All partner organizations have full access to SciGirls resources, including videos, activity guides, webinars, and ongoing support.

TRAIN-THE-TRAINER

All trained educators are eligible to apply to the SciGirls Train-the-Trainer program, where they become certified to empower other educators with gender equitable strategies.

Trainers lead SciGirls workshops for educators in their region. This model creates a robust and growing network of SciGirls practitioners. The impact is exponential!
The SciGirls CONNECT Network includes 204 partner organizations and 82 SciGirls Certified Trainers across 35 states and the territory of Puerto Rico. SciGirls CONNECT partners include community-based programs like YMCA and Girls, Inc., museums and science centers, organizations that serve primarily Spanish-speaking youth, universities, schools and more. The network is a robust community of practice which supports collaboration and sharing of best practices within diverse informal and formal STEM learning environments.
SciGirls by the Numbers

**2017-2018**

- 17 organizations spanning 6 states became SciGirls CONNECT partners
- 12 SciGirls certified trainers provided 19 trainings in 10 states
- 321 educators attended a SciGirls training
- 203 educational organizations implemented SciGirls programs
- 8,944 youth participated in a SciGirls program

**since 2011**

- The SciGirls CONNECT network has 204 partner organizations across 35 states
- 82 SciGirls certified trainers have completed 240 trainings
- 3,478 educators have been trained in SciGirls' gender equitable strategies
- 1600+ SciGirls programs created
- SciGirls has reached a total of 82,451 youth participants
Each year, SciGirls partner organizations and trained educators complete a yearly report reflecting on all SciGirls programs implemented throughout the year. This report presents findings from 60 surveys from September 1, 2017 through November 30, 2018.

In All Communities

SciGirls programming takes place in diverse geographic settings. In fact, 36% of reporting educational organizations serve youth in both urban and suburban communities, and 36% also serve rural youth.

SciGirls programming is designed for youth in grades 3 through 8. SciGirls content resonates best with middle school students, a critical stage for STEM identity development. With support from SciGirls staff, educators and leaders can customize their programs to serve their students of all ages, from kindergarten through high school.

Grade Level

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Number of Programs</th>
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<tbody>
<tr>
<td>9-12</td>
<td>12</td>
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<tr>
<td>7-8</td>
<td>42</td>
</tr>
<tr>
<td>4-6</td>
<td>41</td>
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<tr>
<td>K-3</td>
<td>21</td>
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SciGirls programs take place in a variety of settings. All educators are encouraged to weave SciGirls content into current program models to best leverage their existing assets. The majority took place afterschool, with significant programming during summer months.

GENDER

SciGirls content is primarily focused on eliminating the barriers that prevent girls from pursuing STEM study and careers. However, SciGirls content and activities are accessible to all youth independent of gender and have proven engaging for girls and boys alike. **In 2017-18, 8,477 girls and 445 boys participated in a SciGirls program.**

Race & Ethnicity

SciGirls program participants include a variety of cultural, racial and ethnic backgrounds. As such, cultural responsiveness is a cornerstone of SciGirls vision. By recruiting diverse girls, role models and consultants, SciGirls aims to make STEM an engaging and relevant space for all girls, especially girls of color.

*Hispanic is NOT a race. There are many races within the Latinx community, including White, Black, Native Indian, and even Asian. “Hispanic or Latino” refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.
The SciGirls Seven state that girls benefit from relationships with role models and mentors. SciGirls provides role modeling opportunities—in-person and virtually—to reach girls through as many avenues as possible. In 2017-2018, SciGirls partners recruited 332 female STEM professionals to serve as role models for youth.

If she can see it, she can be it.
- Geena Davis Institute on Gender in Media

Role Model Videos
Combining the power of media and the impact of role models, SciGirls has produced a series of role model videos. These short-form videos feature female professionals from diverse cultural and STEM professional backgrounds sharing their STEM stories. Role models delve into both the challenges and triumphs of “a day in the life” in the STEM workforce. This series highlights female STEM professionals filmed in Spanish and English across the U.S.

National Girls Collaborative & FabFems
SciGirls is excited to continue our partnership with the National Girls Collaborative (NGC). A cornerstone of NGC’s girl-centric model is role modeling. As such, NGC developed FabFems, a national role model database that connects female STEM professional role models with girl-serving organizations. This open-access database allows programs to easily find role models in their geographic and content area.

FabFems has been a critical resource for SciGirls’ partner organizations as we encourage all role models to register and continue inspiring young women to pursue STEM study and careers.

(Pictured right: Alma Stephanie, SciGirls, and Astronaut Dr. Ellen Ochoa)
Stay Tuned

*SciGirls CONNECT* continues to grow in 2019. New projects will help children explore coding and computer science, celebrate their heritage and culture and soar into the science of outer space. Together with our nationwide partners, *SciGirls* continues to inspire children, families and educators in STEM learning!

**Code: SciGirls!**

*Season Five*

*Season Five* will feature *SciGirls* investigating technology uses in earth and space science, marine life, music, gaming and animation. A new game will feature Izzie and Jake who help kids learn to code while they are investigating pollution in the ocean and its effect on marine life. New activities, professional development and outreach programs will contribute to an evaluation of the use of gender equitable teaching strategies and media on girls’ STEM identity.

**SciGirls Strategies**

This professional development project helps Minnesota career and technical education (CTE) educators and guidance counselors recruit and retain more girls from diverse backgrounds in technology, engineering and manufacturing fields. In 2019 *SciGirls* will implement a Train-the-Trainer model in order to reach more youth than ever before!

**SciGirls in Space**

In partnership with the International Space Station (ISS) National Lab, *SciGirls* has created out-of-this-world media that provides children with role models and inspiration they need to explore space science! Meet four young women selected to send their experiments to the ISS and the challenges they faced. Learn about what inspires them and what they gained from their experiences.

**Meet The New SciGirls Strategies**

The *SciGirls Seven: How to Engage Girls in STEM* is based on a quarter-century of research that forms the foundation of all *SciGirls* media, content and activities. Our approach is grounded in culturally responsive, research-based strategies that motivate girls around STEM engagement, including collaboration, creativity, the development of intellectual tenacity, role modeling and more. With the support of the National Science Foundation, TPT is updating these strategies with the latest reasearch. The new strategies will debut in 2019.
SciGirls Works!

“[Girls] learn that failure is a key component of engineering and inventing. They also gain comradeship from learning to work with one another despite differences.”
- Educator at the Children's Science Center

“Love the SciGirls activities and the SciGirls Seven! They have helped improve our programming with K-12 students and teacher workshops, significantly.”
- Educator at North Dakota Space Grant Consortium

“[Girls] see that science is all around them (not just in a lab or class), and they LOVE seeing the transformation from caterpillar that is almost too small to see all the way into a chrysalis and then butterfly.”
- SciGirls Trained Educator

Reporting Partners and Organizations:

SciGirls

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Media and education that change how girls see STEM and how the world sees girls!