



2022-2023 Report

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4-H Science Literacy Projects in Sacramento City Unified School District



4-H Youth Experiences in Science Project

After many years hiatus, 4-H and Sacramento City Unified School District (SCUSD) re-launched the 4-H Youth Experiences in Science Project (YES) in the 2022-23 academic year. Twenty-four Teen Ambassadors from local high schools delivered the project at nine elementary schools. Expanded Learning site staff—or in some cases a 4-H volunteer—coached the teen teams and assured weekly program delivery went smoothly. Teens and coaches attended 10 hours of training at the beginning of each semester to learn about facilitating inquiry-based science, become familiar with the YES curriculum, and practice lesson delivery with their peers.

Eight sites participated in the fall and seven in the spring. Four of the eight Fall sites did not complete the program (Floyd, Kemble, Golden Empire, and Tahoe). Seven sites continued from the Fall into the Spring semester.

From Teen Teachers

Was this year's 4-H YES Project Successful?

"Yes, me and my group did fun stem projects that the kids very much enjoyed. They all learned something and were great listeners."

"Yes, my team and I delivered the lessons successfully throughout the semesters. Students definitely enjoyed the lessons and took valuable knowledge and skills the project aimed to provide."

"Yes, I know because the kids really loved the program and were always curious and enthusiastic about the next lesson that would happen."

Table 1: SCUSD 4-H YES Sites and students served in 2022-23

Site	Semester	Number of Students	
*Floyd	Fall	**	
*Edward Kemble	Fall	27	YES Project
Elder Creek	Fall/Spring	40	YES Project
*Golden Empire	Fall/Spring	71	YES Project
*Tahoe	Fall/Spring	15	YES Project
Carolyn Wenzel	Fall/Spring	**	YES Project
New Joesph Bonnheim	Fall/Spring	**	YES Project
Mark Twain	Fall/Spring	**	YES Project
Susan B. Anthony	Fall/Spring	**	YES Project

* Sites that did not complete the Fall session due to loss of coach or lack of Ambassadors.

** Indicates missing data.

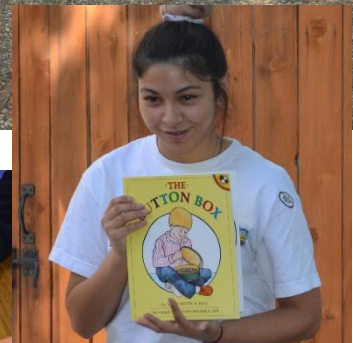
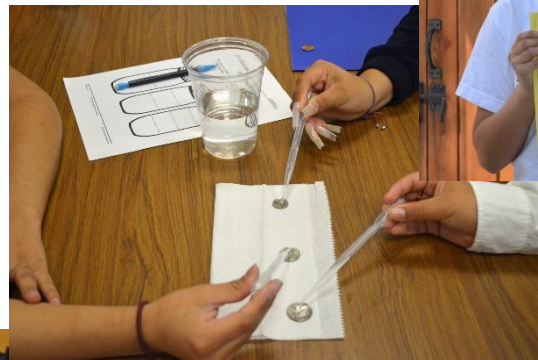
How have you changed as a result of being a YES Teen Teacher?

“At first I believed I was not capable of becoming a teen teacher and being able to teach the youth but after 4-H, I'm happy I did the program because I was completely wrong. I loved the program it helped me build as a person with a new mindset of teaching.”

“Before joining the 4-H YES Teen Teacher program, I was a shy person who sucked at public speaking; however, joining the program allowed me to improve on my communication and public speaking skills. I also was able to improve my leadership and organizational skills due to always having to be on time and prepared in order to ensure the best delivery possible for all the lessons.”

“Most definitely. I feel like I learned to be much more patient when working with younger students, and I feel like the opportunity made me more interested in this career field.”

Teens and coaches were trained in different units for the Fall (Kitchen Science, Worms and Collections) and Spring (Snails, Bubbles and Recycling) semesters. With the exceptions of parishables, sites left with kits containing everything needed for the first unit they would teach. Besides the training sessions, sites participated in a mid-semester check-in meeting to exchange kits .



At YES training, teens practice reading a storybook to younger children and prepare and present a session to their peers. Pictured above teens investigate how many drops of water fit on a coin.

What was the best part of participating in YES?

“My favorite part of participating in 4-H is the privilege of being able to provide enrichment and quality projects for 2nd and 3rd graders at Caroline Wenzel. It is very enjoyable and humbling to be able to see the kids be amazed and excited to do science and stem projects. I also really enjoyed the unique projects and learning curriculum.”

“The invaluable experience of being a teen teacher and a mentor for young students. I very much enjoyed the new relationships I established as a student to other younger students who were always willing to learn from me. Along with that, I gained hands-on experience as a working individual in a daily working world.”

“The best part of participating in the 4-H project is getting to know the kids and having a special bond with them. I would definitely do this again.”

“The best part was probably building new friendships with people I haven’t talked to before and meeting new people.”

4-H Water Wizards

Staff in the Expanded Learning program deliver 4-H Water Wizards. Following best practices, 4-H provided three, three-hour trainings throughout the course of the project. Trainings cover facilitating inquiry-based learning, curriculum content, and how to organize a student-lead service learning project. Three sites participated in the Fall semester, and three in the Spring. Only one site in the Fall (Elder Creek) and one in the Spring (Mark Twain) completed the project.

Challenges with the program included staff turnover at sites and attendance at training sessions. Typically we survey program participants to assess learning and behavior change in water usage, and Mark Twain was the only site to participate in the evaluation.

Table 2: SCUSD 4-H Water Wizards Sites participation in 2022-23

Site	Semester	Number of Students	
*Carolyn Wenzel	Fall	**	4-H Water Wizards
Elder Creek	Fall	**	4-H Water Wizards
*Floyd	Fall	**	4-H Water Wizards
Mark Twain	Spring	**	4-H Water Wizards
*New Joseph Bonnheim	Spring	**	4-H Water Wizards
*James Marshall	Spring	**	4-H Water Wizards

* Sites that did not complete the project.

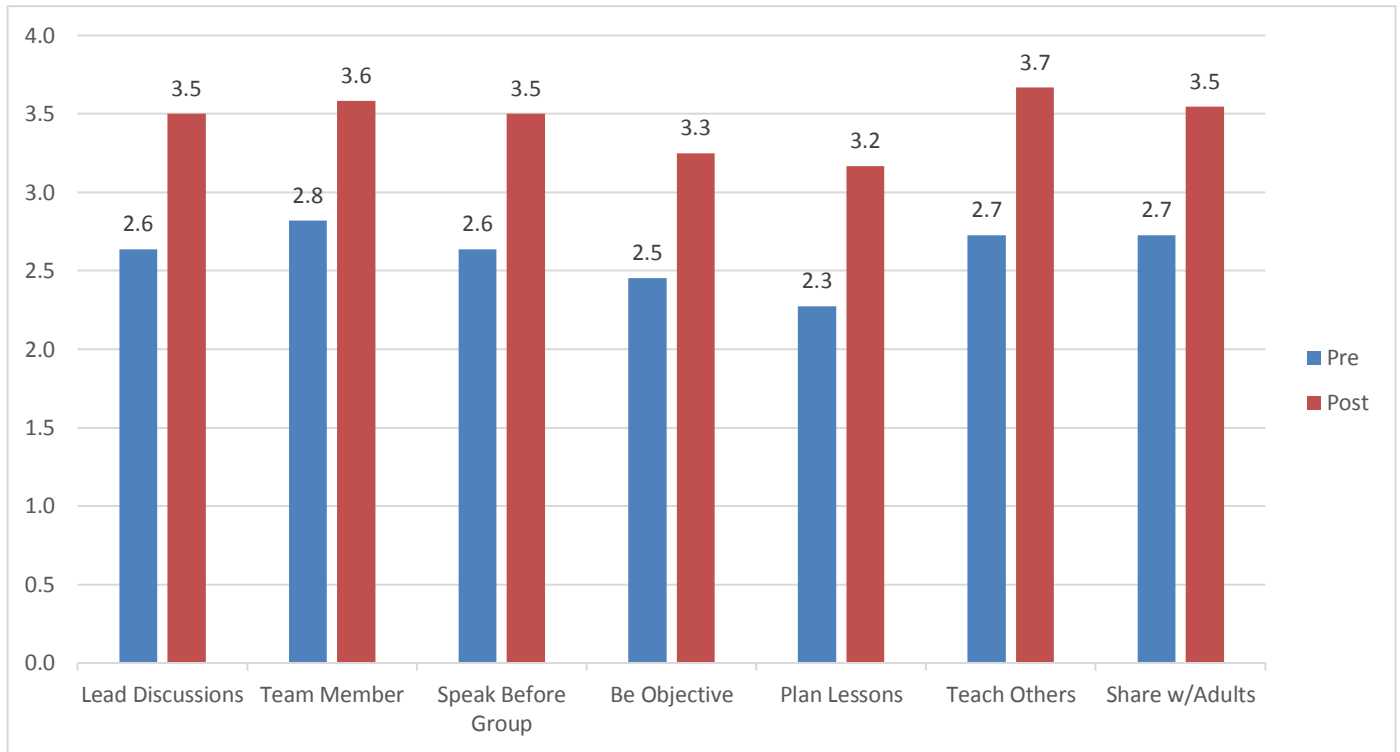
** Indicates missing data.

Teen Ambassador Experience

Building the competence and confidence of the Ambassadors who serve as teen teachers is a project priority. We assessed the teen teacher experience with a retrospective pre-post survey inquiring about their comfort level and skill development through their involvement in the YES Project. Students showed increases across all areas including leading discussions, working as part of a team, speaking before a group, being objective, planning lessons, teaching others, and sharing their ideas with adults (Figure 1).

The survey also provided teens the opportunity to share about their 4-H experience including how they’ve changed as a participant, what the best part was, their relationship with their coach, and what could be improved (see sidebars). Their comments spoke to personal growth and the reinforcing nature of working with younger children.

Figure 1: Teen teacher retrospective pre-post survey scores rating their skill level before and after serving in the 4-H YES Project.



Three teen teachers and their coach from Carolyn Wenzel joined three teen teachers from the Elk Grove Unified School District to lead a session at the California 4-H State Leadership Conference July 27-30 at UC Davis. They presented about the 4-H YES Project and their role as teen teachers to about 25 of their peers. The teens participated in other leadership development workshops, toured different facilities on campus, lived in the dormitories and ate in the dining commons.

