A routine dental visit apparently turned out to be a life-changing experience for Jackie Lomax and her daughter, Lauren.

When Lauren Lomax was 10, she told her mother she wanted to be a dentist. The declaration during that check-up set her mother out on a quest to make sure the dream came true.

Jackie Lomax said Lauren already had expressed an interest in math and science, but, not wanting that interest to wane, Jackie Lomax threw herself into a project that has become Girls 4 Science. It is a nonprofit that offers science-based field trips to girls ages 10 to 18 through the University of St. Francis in Joliet and two Chicago colleges — Olive-Harvey and Malcolm X.

This fall, 88 girls are enrolled in the program, with 28 coming through USF.

Lomax incorporated Girls 4 Science as a nonprofit in 2009.

“I did not want that moment (in the dentist’s office) to be a weak parent’s moment,” said Jackie Lomax, the founder and executive director for Girls 4 Science and a 1998 USF graduate.

“In 2009 I was unemployed and I used my down time to establish the nonprofit. It was something that I hoped would last with (Lauren) and support and encourage her with female advocates and college students.”

Today, Lauren Lomax is a 15-year-old sophomore at South Shore International College Prep on Chicago’s South Side. She still has a strong interest in math and science.

“I’m so proud of her,” Jackie Lomax said. “Now she’s closer to going to college and enrolling in medical school. I believe that Girls 4 Science has helped.”

Selling points

Girls 4 Science emphasizes the STEM fields of education: science, technology, engineering and math. Besides taking field trips and doing workshops at USF, Girls 4 Science also has networking seminars with females in the STEM fields.

One such event was Oct. 12 at Willis Tower in downtown Chicago. Girls got to take part in a speed-networking event with about a dozen members of the Women in Bio organization.

Topics change every quarter and the program runs for six consecutive Saturdays from 10 a.m. to noon. Some students repeat the program because of the new topics discussed.

But since the program meets on Saturdays, Lomax knows what she’s up against to get girls’ attention: the mall, athletics, cheerleading and other extracurricular activities or interests.

“We compete for girls on Saturdays, too,” Lomax said. “But we promote everything. If a girl likes cosmetology, then we promote the science of hair. We did a class once on the science of food. We don’t discourage any interest.”

Last summer, Girls 4 Science entered a partnership with USF. The university helps Lomax’s organization host programs on and off the Joliet campus.

Christine Moskalik, USF’s part-time coordinator of the STEMs Education Initiative and the USF Girls 4 Science program coordinator, said catching and maintaining a girl’s interest in science and math is more difficult once the child reaches middle school age.
Moskalik said there are studies that show boys and girls are on the same learning curve for math and science at the elementary school level. But once children get to middle school and then on into high school, a girl's interest in science and math drops off while a boy's usually stays the same.

Moskalik said the goal at Girls 4 Science is to get girls excited about the STEM disciplines so it will hopefully pay off in the future.

“If they don’t enjoy it, then they won’t do well in it,” Moskalik said. “About 80 percent of all the STEM professionals nationwide are men. We want to close that gender gap. One way is to get girls to do some hands-on activities in the STEM field.

“It’s all about exposure,” Moskalik said. “Our goal is to nurture them and give them a safe place to be supported and build some relationships — and their self-esteem. When you’re 12 or 13, some of this stuff we try to expose them to, they are a bit scared.”

Like Lomax, Moskalik didn’t need to look any further than her 11-year-old daughter, Alex Vanlengen, for reasons why the Girls 4 Science program is important.

Vanlengen is afraid of bees, but after participating in a Girls 4 Science program with a beekeeper, Vanlengen realized there was nothing to fear.

And Vanlengen wants to continue studying the sciences.

“I want to be a dolphin trainer,” Vanlengen said. “I like biology because you learn how animals communicate. Soon, we are going to the Lincoln Park Zoo to do animal behavior research.”

Moskalik sees challenges not just with getting girls interested in science and math, but also with the girls’ socioeconomic backgrounds. That, too, and parental involvement have a lot to do with whether or not a girl maintains an interest in STEM education.

“I think a lot of the challenges the children have in Chicago are different than what the Joliet children see,” Moskalik said. “I have 28 girls signed up for the fall (quarter from the Joliet area) and 14 parents who are volunteering. With that level of parental involvement, it’s safe to assume the Joliet girls have supportive families to pursue programs like this.”

Growing phases

The program has come a long way. Lomax said it was only a six-week summer program in 2009 when she started it, but 18 months later grew into one being offered four times a year.

“It started in my home and I am very fortunate that USF is small enough to be so inclusive to make these mergers happen,” Lomax said. “They are opening up their classrooms and their science labs to us. And when the students do become college age, they will remember that first experience with science and math. I believe that they are creating a lifelong memory.”

Lomax said about 500 girls have passed through the program and in August the program gave out two college scholarships.

But Lomax said Girls 4 Science still needs volunteers for the USF program and donations are being accepted.

For more information on the program, visit www.girls4science.org.
Program nurtures girls’ interest in science - Joliet Herald News