

Mother Daughter STEM Discovery Day 2023

By Judy Young

The 32nd annual Discovery Day was held at Cesar Chavez Middle School in Union City on Saturday, March 4. The event was hosted by the Fremont Branch of the American Association of University Women (AAUW). A national nonprofit established in 1881, AAUW promotes its mission to advance “advocacy, education and research” through scholarships, contests and events explained Jo Szeto, VP of the Fremont Branch.

The intent of the program is to help spark an interest in 3rd – 5th grade girls for STEM subjects (Science, Technology, Engineering and Math).

As the 25 mother (or grandmother)/daughter teams waited for all participants to check in, they were provided with snacks and an opportunity to play some math games hosted by MATHNASIUM.

The girls, alongside their mothers, participated in a half day of four, 40-minute hands-on STEM activities lead by successful women working in these fields.

CODE for FUN introduced the girls to Scratch, a "block-based" programming language where they created a colorful screen of animated dots. They select a Sprite, a cartoon like image and scripts (instructions) that control them.

The Tower Building project lead by the Irvington High School Girls in Stem and the Logan High School Science Club guided the girls on what it was like to be a civil engineer for the day. Two mother/daughter teams were partnered together to build the strongest, tallest tower in 15 minutes out of dry spaghetti noodles, packing peanuts and five pieces of scotch tape. The leaders then traveled to each group and gave a strong jolt to the table simulating an earthquake. The tower was then measured at its tallest peak in centimeters.

The Irvington High School Berbawy Makers were asked to design and launch a catapult using any number of the assorted items provided at their desks with no instructions. Two contests followed: One to see who can launch a plastic block the furthest (measured in inches) and a second to see who can hit the bullseye of a paper target. The girls learned it was okay if the catapult did not launch the first time. (Failure is OK!) You go back and tweak it until you succeed.

Lori Kahn from Lockheed Martin and the Women’s Impact Network provided basic instructions to build a rocket. The girls were then asked to test their rockets and make modifications to ensure the rocket can fly 5 feet and consistently hit a target. At the end of the session, the girls were asked to demonstrate their rockets as a group.

At the end of the morning sessions, the mother/daughter teams gathered in the gym. Jo Szeto talked about other educational programs such as Tech Trek and Speech Trek aimed for older girls. One of last year's Tech Trek students, Ella Cheung, talked about her experience at Tech Trek.

Door prizes were donated by AAUW members and MATHNASIUM. All in all, it was a fun day for everyone!