



Informational Memo: Futures Unlimited 2018

To: School Board
Superintendent Kocanda

From: Maureen Chertow Miller, Director of Technology

Date: February 27, 2018

Overview & Background

Since the launch of STEAM programs in District 36 schools in 2015, one of our areas of focus has been to increase female participation in our programs and beyond. Research has shown that social and environmental factors are the reasons few women and girls are in science, technology, engineering, and mathematics fields where STEM job salaries tend to be higher as compared to non-STEM fields. In Winnetka, we are encouraging girls to participate from a young age and working to break down the gender stereotypes around STEM.

In 2017, the CW Colab facilitator, Mr. Timothy Selgrat, and Director of Technology, Mrs. Maureen Chertow Miller, organized a group of 12 students to attend Futures Unlimited at Oakton Community college. Futures Unlimited is a program providing the opportunity for 8th grade girls to interact with female leaders in STEAM careers and graduate programs. In 2018, this number grew to 22 students and Ms. Berna, Ms. Keeter, and Ms. Ladik were chaperones. Extending the invite to the math and science teachers, led to better communication about the program. It is our hope to see these numbers increase each year.

Futures Unlimited is a one-day educational program that provides eighth-grade girls with exciting opportunities to explore diverse careers in Science, Technology, Engineering, and Mathematics (STEM). The program includes sessions with role models comprised of women who have achieved success in a variety of non-traditional careers; hands-on workshops led by Oakton faculty, staff, and graduate students; and breakout sessions introducing STEM programming at area high schools.

Typical Agenda

9:00 - 9:05 a.m. Welcome
9:05 - 9:20 a.m. Keynote
9:25 - 9:55 a.m. Role Model Session 1
10 - 10:30 a.m. Role Model Session 2
10:35 - 11:20 a.m. Lunch, Photo Booth
11:25 a.m. - 12:15 p.m. Workshop I
12:20 - 1:10 p.m. Workshop II
1:15 - 2 p.m. High School Breakout Sessions

Sample Workshops

- Microbits: The Internet of things
- What chemicals are in your drinking water
- Polymers
- LEGO dream house
- Alternative energy
- Identity crisis! Are we more human or more microbe?
- Why posture matters
- Medical Laboratory Technology
- Lean Manufacturing
- Extracting DNA from Cheek Cells
- Solar Powered Cars
- Forensic Archeology

The High School Breakout session is hosted by New Trier High School and provides our students the opportunity to learn first hand of the opportunities in STEAM that await them at New Trier. Jason Baumstein, Applied Arts department chair at New Trier, hosts the session.

Next Steps

District 36 has been monitoring female participation in our Washburne elective program, tracking overall enrollment and female enrollment in New Trier STEAM courses. We have seen an increase over the last three years. Participation in New Trier Applied Arts courses for females rose from 13% in 2014-2015, to 29% in 2017-2018. We will continue to encourage female participation and support opportunities that are geared towards our female students.