By The Numbers: Class Ratios (Females:Males)



Science teacher John Chai agrees that STEM is very male dominated. "I definitely think women and minorities are underrepresented in STEM," Chai said. "So, anything that helps balance that out in general is probably a good thing. If the field looked more like the demographics of the whole population, then you would have a lot more voices. On a big scale, that could advance science in a good way."

Another cause for the lack of females in STEM is prevalent sexism in workspaces. Some female students said they feel like they get unnecessary help with hands on activities from teachers. "There were times that I felt like he stepped in and did something for me even though I wanted to and could do it myself," Mentzer said.

However, many young women are changing the statistics in the ever shifting field of STEM. "I've always kind of been interested in science," Mentzer said. "It's just really cool to me to see how things work."

Mentzer initially was not interested in technology, engineering, or mathematics, but as she was taking an engineering course for college credit she became intrigued. "I started researching engineering and I realized that, because of the way my mind works, that this might be a good fit for me," Mentzer said. "I'm curious, I never want to stop figuring things out. I'm not sure what kind of engineer I want to be yet, but I like the problem-solving aspect of it and the creativity."

Abby Coon '21 is also in the Principles of Engineering class, as well as one of the First Tech Challenge robotics teams. "When I was



After school, Paige Mentzer '21 makes adjustments to her robot for her engineering class.

younger, I was really into doing stuff with my hands and making stuff that did things," Coon said. "So then I started taking more and more engineering classes. I was on the LEGO robotics team over at Summit, so I got really interested in building stuff. Then, over at the middle school, I did Hyperstream, and then got into FTC, which is building robots but it's metal instead of plastic."

Dao was exposed to computers at a young age, as Dao's father is the network administrator at Heartland AEA. "From a real, real young age, he had a computer at home," Dao said. "We had internet access at home, which in the mid 90's, was kind of a big deal. I had always been around them, and then in middle school I got the opportunity to join basically Urbandale's equivalent to the help desk. We were a student team that went around and took care of the work tickets for the Urbandale district. That's how I first got started in [computers] in a professional setting. Computers were something I'd always been into and really loved."

Despite being outnumbered and sometimes treated differently, Mentzer



continues to take STEM classes. "I've never really been the type of person to be swayed by other people's opinions," Mentzer said. "It's almost as if I'm oblivious to what others think or say. If what I want to do is seen as different than other girls, I don't care. It's what I want to do."

Today, the amount of women going into STEM keeps increasing. More women than ever are working in core STEM fields. 61,430 more women worked in STEM jobs in 2017 compared to 2016.

Shrestha recognizes how more clubs and

activities are offered to women pursuing STEM. "I think now we are lucky enough to have opportunities for everybody," Shrestha said.

Stella Zeng '20, also a member of Robotics Club encourages young girls to pursue the opportunities offered by the schools. "If you have even the slightest interest, go for it."

Many agree that it has become easier for women to go into STEM. "The pressure at the time versus now is so different," Beguhn said. "It's so much better. There are more paths to help women get in there. I don't think the barriers are there like they used to be."

Students and teachers involved in STEM want young girls to know that they should not be afraid to go into the field. "I think girls are sometimes hesitant to take risks," Dao said. "With fields like science, engineering, and technology, you have to be able to take risks and make some mistakes. Just know that it's not a reflection on you personally. The only way that you're going to be making progress is by trying to make those steps forward. Technology is all about trying things and finding problems that need solutions, and sometimes the first solution you come up with isn't the right one. That shouldn't discourage you from continuing to try."

Gearhart has worked with young females in his classes, and encourages anyone with even the slightest interest to try STEM. "Give it a shot," Gearhart said. "I have countless stories of former girls that have gone on and pursued STEM careers and have done awesome. A lot of them didn't know what they were getting themselves into. They just really enjoyed it, took some more classes, and found out it was fun. You can problem-solve and find solutions to make the world a better place. It can be a meaningful career."

Science teacher Lisa Horsch encourages young girls to try STEM classes even if it can be lonely. "If you are alone in a class convince a friend to come in with you," Horsch said. "Just stand proud and don't worry about it."

Mentzer encourages girls to go and put themselves out there and. "Do what you want to do," Mentzer said. "Going your own route is super cool, people appreciate you for that. It's a story to tell if you just do your own thing."

Shreya Shresta '20 works through a math problem on her AP Calculus homework.

