



YTN in support of the **Virginia Refugee Student Achievement Program** provided STEM enrichment programs that introduced participants to the anatomy of the human & and computer-aided design (CAD).

For the human anatomy program, students used AR/VR systems and software to explore body systems that enable the arm to function. They learned that the arm is made of cells and that bones and muscles are key body systems that enable the arm to perform the amazing functions it does. As hands on projects the students made microscopes, simulated human and plant cells, and a simulated bone. For the capstone project, the students constructed a prosthetic arm using PVC pipe and joints, hinges, bungee cords, straws, duct tape, and plastic balls.



The computer-aided design program was conducted virtually, participants learned what is CAD and its uses as well as industries and professions that regularly use it. Participants then used CAD software and 3D printing to design and print a wearable medallion with their initials on it. Participants were excited to discover becoming a CAD technician generally requires only an associate's degree or certifications and is good career choice for anyone who is passionate about design and working with computers. Several of the participants demonstrated a strong understanding CAD software and may become CAD technicians!

