HMCS Students Tinker and Create in MakerSpace

Students in Ms. Wahba’s Technology Class experimented with STEM tools including Robotics, Coding, Circuits, and Engineering in the Horace Mann Community School MakerSpace. The MakerSpace is a place where students take ownership of their learning by completing STEM related activities that foster critical thinking and problem solving. The teacher acts as a facilitator, providing guidance and monitoring students as they work together to complete challenges, create, invent, and learn. Activities including electronics, robotics, coding, 3D printing, cardboard construction, and circuitry. MakerSpaces can begin with small boxes, stations, a mobile cart of supplies, or a designated space with different stations.

Some of the tools that are used range from low-tech to high-tech. Low-tech items include art supplies, cardboard, recycled material, and Legos. High-tech items include Littlebits, Arduino kits, robotics, and 3D printers. A MakerSpace can begin with just a few items that are already available in the classroom. The main goal is for students to create a product using hands on creativity. It could be digital or a physical product. Students learn better and retain more when they are engaged in creative thinking; therefore, makerspaces are not defined by the tools, but the result is enabling students to become “makers”.

Submitted by: Mrs. Dwyer
Midtown Community School Technology Teacher
Students in Mrs. Dorans’ Technology classes at John M. Bailey Community School have been unplugging throughout the year. During unplugged activities, students have the opportunity to utilize the engineering design process to do research, use their imagination, plan, create, test prototypes and improve. Students in the younger grades particularly enjoyed having a friendly competition where students were challenged to create the longest paper chain with limited materials and time. Working in groups, students were able to create a plan, test ideas, and make improvements in their designs. More importantly, students valued the teamwork that took place during the challenge. Some other activities have included: creating their own applications to fix a problem in our world and cup stacking coding. Students in the upper elementary grades have designed paper plate baskets and participated in challenges to build solid foundations out of simple materials. An opportunity for students to use the engineering design process; but also an opportunity to engage students and instill persistence. At the end of the day, as humans, we all face frustration. These unplugged activities assist students in developing and identifying techniques to make struggle rewarding.

Submitted by: Ms. Dorans
John M. Bailey Community School Technology Teacher