

## Making a little light

**W**hat do you do with a big box of broken Chromebooks? That was the dilemma facing Patricia Heasley, the librarian at Independence Middle School (IMS) in Bethel Park. Ms. Heasley was a key player behind the school's winning proposal for a \$20,000 STEAM grant from the Allegheny Intermediate Unit in 2016. That grant helped transform the traditional library into a new Learning Library Commons, which features fun Pittsburgh-themed learning spaces like Creation Station Square, the Communicultural District and Steel City Collaboratory. Committed to STEAM education, the Bethel Park School District participates in an initiative to provide students in grades 3-12 with Google Chromebooks. Each of the 750 IMS students receives a Chromebook at the beginning of the school year.

Unfortunately, there's a down side. "They don't last long," admits Ms. Heasley, which explains how she ended up with a box of broken Chromebook screens stashed under a library counter.

Then she had an idea. She sent an email to one of her students. Kelly Katilius, now a freshman at Bethel Park High School, was an 8th grader at IMS last year and remembers receiving that email.

"Ms. Heasley said she had a problem," Kelly recalls. "She wanted to do something with all the broken Chromebooks other than throw them away and turn them into landfill e-waste. She asked me if I wanted to take on a project."

After watching a video Ms. Heasley forwarded to her on how to make windows out of Chromebook screens, Kelly was excited. "I said yes."

First, she had to learn about electronics, so every day during lunch period, she sat in the library and used scissors to carefully open each broken screen to examine the wiring. To make the window, she had to find screens with compatible components, and before she found suitable parts, she estimates that she dissected a hundred broken Chromebook screens.

Then Kelly had a bright idea. As a 7th grade member of the Future Career Community Leaders of America (FCCLA), she had competed in state and national competitions, winning gold for her project in the Life Event category. Now she wanted to take her Chromebook window project to the state FCCLA competition.

Heather Fontana, her Family Life Science teacher and FCCLA faculty mentor, thought it was a great idea. "The project fit well



Kelly with window

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in the Environmental Ambassador category," she says. "She chose an issue that is faced by schools, communities and homes."

This project was a bold undertaking, though.

"It's a hard category," Ms. Fontana admits.

Kelly named her project "Making a Little Light." She prepared a detailed written report and oral presentation and in March 2017, she traveled to the state competition in Seven Springs, PA. Before a panel of judges, Kelly displayed her illuminated, 4-paned, wood and



Kelly and teacher Heather Fontana

Chromebook screen window and explained how recycling broken Chromebooks reduces e-waste and helps with Seasonal Affective Disorder, a type of depression related to the changes in seasons, which can be treated with light therapy.

She won gold and qualified for the national competition, which took place over the 4th of July weekend in Nashville, Tennessee. At nationals, her window project won Silver, which was the highest award in that category.

I met Kelly at the STEAM Showcase last fall. Her "recycled" window amazed me. I never would have guessed it was made from broken Chromebook screens. When I later visited IMS and admired the school's new Library Learning Commons, Ms. Heasley and Ms. Fontana showed me the spot where they plan to make Kelly's award-winning window the centerpiece of a wall display. As Kelly and her teachers pointed out, "The new library doesn't have any windows."

What a perfect spot of honor for a window that "makes a little light." ■

Regular Pittsburgh Parent contributor, Ann K. Howley, enjoys meeting smart, creative kids and writing about STEAM education.