

Coventry Students Using 3D Printers To Create Prosthetic Hands

By: SARAH CODY

Special to The Courant

At Coventry's Captain Nathan Hale Middle School, a piece of high-tech equipment is inspiring some sixth-graders to think big.

"I had never seen it before and once I saw it, I was like, 'Whoa,'" says 11-year-old Karlee Small, one of the students working with a 3D printer to create prosthetic hands that will be sent around the world to help those in need. "This is my dream. I always wanted to work in the medical field and this is just one step closer to my dream." The sophisticated project is proving to be more than a lesson in computer skills and manufacturing. The kids are using technology to learn problem-solving skills and the value of generosity.

"They're not just making something that they can take home and put on their toy shelf," says Jeffrey Spivey, the challenge and enrichment teacher who came up with the idea. "They're making something that will go out to someone who will actually use it for a good purpose." Spivey discovered Enabling the Future (enablingthefuture.org), a global network of volunteers, using the printers to "give the world a helping hand." By the end of the year, the class will create 20 hands. Most will be sent overseas to be distributed to kids in developing countries. Additionally, the class will be matched up with a certain individual to design a hand with specific measurements just for him.

The printers are expensive — about \$3,000 apiece. Spivey found a special deal, allowing the district to purchase three printers for a reduced price. Principal Dena DeJulius thinks that the investment is paying off. "They're getting all of those math skills, technology skills, science skills," she says, noting that the lessons are varied. "Middle school students are very prone to giving back through fundraising efforts, working with people in need, and that's what the students do here every month." Many pieces and precise work contribute to the creation of each articulated hand, which takes 24 hours to print. The fingers, strung together with bungee cord and fishing twine, can fully grasp an object. "If you mess up, don't give up. Just keep going and do it again," says 11-year-old Wade Stinson.

Hartford Courant & FOX61

February 1, 2016

The students are thriving. "It's definitely opened up my mind to see what else I can do in this project and what else I can do for the community," Karlee says. Spivey is interested in expanding the project to include the creation of prosthetic paws for puppies. "The world is your oyster with the 3D printers," he says. "It really gives the students something to grab onto and enjoy and hopefully something they can apply to their lives beyond school."

To see the 3D printer at work, watch Monday's FOX 61 Morning News.

Copyright © 2017, Hartford Courant