## **EDUCATION**

## From boxes to basketball

## Cardboard Challenge gets children thinking, creating

By Emilie Munson



Tyler Sizemore / Hearst Connecticut Media Third-grader Santiago Sirito, left, kindergartner Lucas Pascual, center, and third-grader Tobias Knoll play a popsicle stick soccer game during Global Cardboard Challenge presentation day at Riverside School.



GREENWICH — It could have been a scene from a neighborhood arcade, except it wasn't.

Students throughout Riverside School played foosball, whack-a-mole and table soccer before stepping up, one by one, to a low basketball hoop with a sign saying "Be the next Michael Jordan!" and took their shot.

Throughout the school, halls echoed with noise as children circulated through the classrooms, playing game and chatting with classmates.

All of the games, as well as mini cannonball launchers, ramps for marbles, boardgames, homes and boats, were designed by the students and built, almost exclusively, out of cardboard.

Third-grader Julia Lattuada plays a cardboard whack-a-mole game during the Global Cardboard Challenge.

As part of the Global Cardboard Challenge, students in kindergarten through fifth grade at Riverside devoted two days to drawing, planning and crafting elaborate structures and games out of cardboard donated by

parents and staff. The Challenge was aimed at promoting STEM skills — innovation and collaboration in students.

With his recycled cardboard, one third-grader built a speed ball game, a shallow box containing a maze, modeled on a game he has at home.

Across the hall, fourth-grader Luis Gallic stepped up to a colorful cardboard spinner boldly labeled "The Wheel of Popcorn." When the spinner stopped in pink, Luis collected a cupfull of pink ball "popcorn" from a focused classmate wearing a handmade staff badge.

Luis described the Cardboard Challenge as "quite fun."

"I learned there is a lot you can make out of cardboard," he said "I've seen a spinner and table foosball and minigolf. I've seen a lot."

The two-day Cardboard Challenge was inspired by the video Caine's Arcade, which has more than 5 million views on YouTube. The video features a 9-year-old boy from Los Angeles who spent his summer vacation building an arcade — complete with games, tokens, prizes and an office with a cash register — out of cardboard, eventually filling the front of his father's auto-body shop with his creations and charging a few cents for admission.

Fourth-grade teacher Michelle Crawford saw the video soon after it was released in 2012 and was inspired to bring Caine's Arcade to her own classroom, she said. For a few weeks at the end of the school year, her students would spend their math period engineering and constructing their own creations.

"When the kids saw (the video), they connected immediately," said Crawford. "The kids connect to other kids, and when they see (Caine) doing this — a kid their age — they are just blown away."

"It's my favorite thing I have done teaching," she said.

Over the years, Caine's Arcade has been embraced by schools around the world that host their own Cardboard Challenges. Crawford was thrilled that the movement has spread to the rest of Riverside.

"I like the whole school doing it over two days because it's nice to have that collective experience, something we can all talk about as a school and share," she said. "I love it."

Kindergarten teacher Cristina Fioravanti said that she liked that the challenge encouraged her students to experiment and take a chance.

"What I love about it is, they're not afraid to take risks," Fioravanti said. She pointed to a student who had covered her cardboard creation with feathers. "In her mind, she created something out of nothing, and I think that's rewarding in itself."

Fostering experimentation and risk-taking is one of the goals of Riverside School's four year theme of innovation. As part of that, Riverside has replaced its annual science fair with a STEM fair, started a Genius Hour, when students can pursue personal projects and ask questions, and opened an Innovation Space in the media center.

Principal of Riverside School Christopher Weiss viewed the Cardboard Challenge as a good kick-off to another year of innovation at Riverside, he said.

"The discussion was what can we do to launch innovation at the school this year?" he said. "This is a non-technology event — no iPads — but it is very much about engineering and design, about innovation, about building, about STEM skills."

Although students were shown the Caine's arcade video, they were encouraged to make whatever inspired them.

"One of the focuses of the Cardboard Challenge is on creativity and imagination," said Weiss. "It ties in really well with the district's emphasis on personalized learning because you'll see in the classroom all personalized projects they designed themselves, they created."

Riverside Advanced Learning Program teacher Kate Miserocchi said she admired the Cardboard Challenge because of the social and emotional learning that can happen when children collaborate on creative projects like this.

An unexpected outcome of the challenge is that children of different learning styles are forced to problem solve and compromise to execute their creative visions, she said.

"That's what I feel has been powerful for the kids," Miserocchi said. <a href="mailto:emunson@hearstmediact.com">emunson@hearstmediact.com</a>; @emiliemunson