

Local students recognized for climate change artwork at exhibition celebration in Chelmsford



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CHELMSFORD — As an unprecedented heat wave sweeps through parts of the country, climate scientists and scholars continue to advocate for change. And the next generation is already interested in finding solutions.

The Cool Science Extreme Weather Art Competition invited K-12 students across Massachusetts and other states to respond to modern climate problems through illustrations. Participants were asked to visualize the impact of extreme temperatures in different places in the world, flood preparation and a public transit system in the midst of a storm, all in the name of educating the public.

The contest, co-founded by UMass Lowell, [honored](#) this year's winners and runners-up at a ceremony at the Chelmsford Center for the Arts Friday night. While there, award recipients walked through a Merrimack Valley Transit bus that featured their own artwork.

Local winners included Mika Tokifuji and Megan Morgan, rising seventh-graders at Westford's Stony Brook Middle School, and Madeline Agyapong and Caoilinn Quealy, rising 12th-graders at Greater Lowell Technical High School. More than 350 K-12 students in Massachusetts, as well as Kansas, Missouri and elsewhere, submitted art for this year's contest.

Jill Hendrickson Lohmeier, associate professor and chair of UML's School of Education and a co-principal investigator for Cool Science, shared how students are privileged to take science courses, as many adults don't get to do that anymore. Scientists are still discovering new things, she said, meaning adults need to keep learning and rely on kids to teach them.

"Even though you students are pretty young, you have a really important voice," Hendrickson Lohmeier said. "I am guessing that you are going to continue to use that voice. And when you all become adults, many of you I'm sure will be scientists, artists, educators. We are looking forward to seeing how you continue to use that voice to educate others, discover things and create art that makes people think."

In her research for the contest, Morgan found that temperatures have dropped to nearly minus 30 degrees Fahrenheit in her hometown of Westford, but places with warmer climates can similarly drop into the negatives.

Her entry depicts the science behind those changing temperatures, showing how heat becomes trapped in the atmosphere and contributes to global warming. The jet stream, in turn, can dip down to freezing temperatures, causing pipes to freeze and typically warm places, like Florida, can experience unusual cold, she said.

“I’m comparing how I deal with extreme cold to somebody else who lives in a different part of the world,” Morgan said. “I chose Tallahassee, Florida, because they aren’t always as prepared for cold as we are because it’s much more rare where they live.”

Quealy chose to show how communities can prepare for floods by putting together an emergency kit, storing valuable items on high ground and making an escape plan. Though her graphic was an assignment for her shop class, Quealy said it’s useful to illustrate ongoing climate impacts.

“It’s definitely important because it’s about our safety and our future,” Quealy said, “so it’s good to be informed on what’s going on.”

The Cool Science program, started in 2012, is all part of an ongoing research project between UMass Lowell, UMass Boston, the Massachusetts College of Art and Design, Kansas City Art Institute and University of Kansas “to better understand the ways people learn outside of the classroom,” according to a press release. About 4,600 students have since participated in the program, which is supported by the National Science Foundation.

Runners-up included Zoya Pathan, a rising sixth-grader at Chelmsford’s Parker Middle School, and Stony Brook Middle School seventh-graders Sidrah Azmi, Arya Gokhale and Rhea Mather.

Christopher Skinner, assistant professor in UML’s Environmental Earth and Atmospheric Sciences department and member of the university’s Climate Change Initiative, presented on the impact plants have on climate and weather. Artist and UML alum Jessica Tawczynski shared her artwork that reflects the changing nature of her environment and coastline erosion during the ceremony.

For Hendrickson Lohmeier, Cool Science is more than a learning and research opportunity for students.

“We find that many students love art, and it’s a way to encourage them to think about science in their art,” Hendrickson Lohmeier said. “And other students really love science, and it’s a way for them to use science in art to get them more engaged in art.”