Middle school students try their hands at city planning

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MARIETTA — Some of today’s middle-schoolers might just be tomorrow’s city planners, architects, engineers and scientists.

About three dozen teams of sixth-, seventh- and eighth-graders from Cobb, metro Atlanta and across the state descended upon Kennesaw State University’s Marietta Campus on Saturday for the regional finals of the Future City Competition, which tasks middle-schoolers with imagining, designing and ultimately building tabletop models of cities of the future.

Tony Rizzuto, an associate professor at Kennesaw State University’s College of Architecture and Construction Management, served as regional coordinator for the competition. The Future City Program, which serves more than 40,000 students annually throughout the United States and abroad, was created as part of the educational outreach by DiscoverE, formerly the National Engineers Week Foundation.

STUDENTS, 4A
STUDENTS

From 1A

“The idea is to essentially encourage students to consider STEM (Science, Technology, Engineering and Math) careers by exposing them to engineering design processes, and to really begin to look at the environment and urbanism,” Rizzuto said of the program, adding that urban planners and architects assisted with Saturday’s competition, some of whom served as competition judges and mentors.

Before advancing to the regional competition, teams designed a virtual city using computer software and wrote an essay describing the unique features of their city and their solutions to the theme of “Waste Not, Want Not: Solid Waste Management Systems of the Future.” Saturday marked the culmination of the program, as students were tasked to give a presentation of their model cities and their waste management solutions, using their models as a prop.

The model cities were built prior to the event, and students could only spend a maximum of $100 on their models, requiring them to use primarily recycled materials.

“It’s to teach them about recycling, but B, it’s also about imagination — how can you look at something that’s used for one thing and reimagine it on a different scale for something else?” Rizzuto said.

Among the competitors were students from Marietta-based Collaborative Hybird Instruction Academics, which provides face-to-face class instruction, home and online schooling. The team of four — Olivia Bessegato, Aidan and Brennan Haffey, and Milo Pomerance — created the Norwegian city of “Drackenfels.”

“We chose Norway because it’s the leading producer of green energy,” said Brennan, a seventh-grader. “A lot of our energy requires water, and Norway is basically filled with water in the fjords.”

Their model utilized the abundant water around the city through the use of water turbines. Wind and solar power were additional sources of electricity.

The students made sure their city’s buildings played a role in the “four R’s” of waste management — reduce, reuse, recycle, repurpose.

“Every building has three large trash containers — one is for trash, one is for compost, and one is for recycling. On the side of the building are rain barrels and snow barrels as well that can purify water for any water needs,” said Aidan, also a seventh-grader.

Building their model saw them taking to heart the four R’s. Not everything would be found in your typical recycle bin.

“Business cards and just random materials — toilet paper rolls for some of the things,” said Olivia, a sixth-grader. Other repurposed items included a soup container, milk carton lid, a doorknob and computer parts.

“A lot of it is computer parts,” Milo added. The team used a 9-volt battery to power the computer fan, which spun as part of their display. Each model city is required to have at least one moving part.

Eighth-graders Jacob Lee, Davis Nilson and Owen Snape from Hightower Trail Middle School in east Cobb used medicine bottles, recycled cans, construction paper, Lego bricks and other items to construct “Jade City,” based on a reimagined Savannah that had been hit by a massive hurricane, which created mountains where it had previously been relatively flat.

“All of our sources of energy are renewable — hydroelectricity from the river, wind energy from our turbine,” Davis said of his team’s city. “All these clear (Lego) pieces on top represent solar panels, and our trash that cannot be recycled or composted is burned and the heat energy is used.”

“We use the ash from the incineration and we mix it into the cement for roads,” added Owen.

Ultimately winning the competition was a team from St. Jude the Apostle Catholic School in Sandy Springs, which will receive an all-expense-paid trip to Washington, D.C., Feb. 13-17, preceding Engineers Week.

Other local schools taking part in the competition were East Cobb and Griffin middle schools. East Cobb’s “Trash Transformers” team earned awards for “Most Innovative Power Generation” and “Best Futuristic City,” while Griffin’s “Underwater Those” team was recognized for “Best Use of Nanotechnology” and “Best Incorporation of Cultural and Historical Resources.”

The team from CHIA was recognized as the “Rookie Team of the Year” for having the highest overall score out of the teams participating for the first time.

Hightower Middle School eighth-graders, from left, Owen Snape and Davis Nilson explain to competition judges the features of their model city, ‘Jade City,’ at Saturday’s Future City Competition at Kennesaw State University’s Marietta Campus. The two, along with classmate Jacob Lee, said their city of the future used only renewable sources of energy. / Staff Jon Gargis