

## Rome students selected to compete in NASA competition



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**UTICA/ROME, N.Y. (WKTV)** - A team of 5th through 8th graders from Rome's elementary schools have been chosen to compete in a national "NASA" science contest. The youngsters designed a water recycling system that could be used on the moon in the event there are astronauts living there for extended periods of time.

Saturday morning, The Children's Museum of History, Science and Technology in Utica unveiled the local team of kids that actually calls themselves "NASSA", with two s's. NASSA stands for the "Neighborhood After School Science Association". NASSA is just one of twenty groups of kids selected nationally to compete in the contest. Next up, the group will present a PowerPoint presentation via webcam to NASA, with one s, on April 12th.

## Rome students take step into future in competition



The Children's Museum of  
History, Science & Technology  
at 311 Main Street, Utica NY  
~ serving Utica, Rome, The Mohawk Valley  
& beyond ~ [www.museum4kids.net](http://www.museum4kids.net)

*The members of the Neighborhood After-School Science Association, led by Beth Bulawa, left, give a presentation at the Children's Museum Saturday, March 20, 2010. A project designed by the group is one of 20 finalists in a NASA competition. LISA KAPPS / Observer-Dispatch Posted Mar 20, 2010 @ 02:27 PM*

ALBANY — If you didn't have access to safe water for drinking, cleaning and cooking, what would you do? NASA posed this question to students across the nation in fifth through eighth grades. They were to design a water filtration system that could be used by lunar astronauts living and working on the moon in the distant future.

The competition required teams to create potable, or drinkable, water out of simulated waste — consisting of tap water, white distilled vinegar, baby shampoo, ammonia, baking soda and salt. A project made by a group of students from the Rome City School District — the Neighborhood After-School Science Association — was chosen as one of 20 finalists in the country.

On Saturday, the team unveiled its project at The Children's Museum of History, Science & Technology on Main Street in Utica. "They put in countless hours on this," said Beth Bulawa of Rome, who serves as a mentor for the group. "We're so proud of them."

The team's first intention was to filter the simulated waste once, but that was insufficient. "You can't just filter it," said Ben Olney, 13, an eighth-grader from Rome.

With research, the group devised a four-step process that worked:

- First, the simulated waste passed through an activated charcoal filter to remove solid and organic material.
- Salts and soap were then removed by distilling the simulated waste.
- The water vapor is collected and bubbled with Stability, a bacterium found in fish tanks that feeds on ammonia, for 48 hours.
- Finally, the team corrected the pH of the water using a product for pools.

In April, the team will give a remote presentation to NASA. "We're very excited," said MaryAnn Bulawa, 14, an eighth-grader from Ava. If the team's project wins the competition, it will win a tour of the Kennedy Space Center in Florida.

The members of the the student group said they developed more than their science skills while participating in the project – they also learned persistence. "I think one of the big things they found out is – it's not easy," Beth Bulawa said.

Trial and error-based projects, such as this one, will serve these students well for their futures, said Rome City School District Superintendent Jeffrey Simons at The Children's Museum Saturday. He said the project was an example of the sort of student-directed learning that leads to excitement in education. MaryAnn Bulawa said she learned "what it takes to be successful."



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### **Rome kids make national competition finals** *By STEVE JONES Staff writer, Rome Sentinel*

Members of "NASA" worked long and hard to obtain drinkable water for a future station on the moon. And when they did, they were placed in the running to go to Florida. The Neighborhood After-School Science Association, made up of Rome students, is one of 20 finalists in a nationwide NASA challenge that could earn them a private tour of the Kennedy Space Center in Florida.

The group – six students from Strough Middle School and Staley Upper Elementary School – came up with the name of the club to mirror the nationally known acronym. The members are Staley sixth graders Fiona Dutcher, 11; Lillith Bulawa, 11; Baylen Marschall, 12; and Strough students Tyler Marschall, 13, seventh grade; Ben Olney, 13, eighth grade; and Maryann Bulawa, 14, in eighth grade.

NASA's challenge to students in grades 5-8 was to design a system to filter water so it could be used by lunar astronauts living and working on the moon in the future. The Waste Limitation Management Recycling Design Challenge required teams to create drinkable water from simulated waste — a concoction of tap water, white distilled vinegar, baby shampoo, ammonia, baking soda and salt.

The answer from the Rome students was broken into four parts: use of a charcoal filter to remove solid and organic material, distillation for removal of salt and soap, removal of ammonia by collecting and bubbling it off with Stability (an ammonia-eating bacterium) and correction of pH levels using a pool product. The pieces of the puzzle in the challenge were not just to purify the water but to solve problems such as cost, how to power the creation and how to assemble the materials (even on the moon).

The Rome students presented their project at the Children's Museum in Utica Saturday. It is still on display there. "As a mom I try to encourage the kids to do anything related to math and science," said Dr. Beth Bulawa, the students' mentor. The six students have been involved in these types of projects together before, she said. "It was wonderful," said Bulawa. "The enthusiasm is there, and it's very rewarding." The students, she said, came to the table with plenty of knowledge they'd already acquired in school. "The fundamentals they are learning in their own schools becomes very obvious when you do something like this. I'm very pleased as a parent."

The experimentation started in November, and though the project was submitted, the students are still making improvements, proving, as Bulawa noted, that great things can still be made better. The project taught the students plenty, said their mentor. For example: "Not to give up when the simple thing doesn't work." She said it was also good to see that the effort was rewarded. "I was so appreciative of Mr. Simons and the mayor coming out to see their presentation," she said of Superintendent of schools Jeffrey P. Simons and Mayor James F. Brown, who attended Saturday's presentation. "Hard work pays off," Bulawa said.

Tracy O'Rourke, principal at Strough, said the effort has shown three important things. First, the students did not turn a science fair project into a submission for this contest, but created something new. "I thought that was great initiative," he said. Also, it took teamwork between the students from the two schools to make it all come together. Lastly, it showed that the Mohawk Valley is home to technological innovations at all levels. "The fact that you have a young group of students taking the initiative to come up with such a project and be recognized in the top 20 in the nation proves that this area is still producing in the area of technology. It's also a credit to the schools that are supporting these things, which helps make our students successful."



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