



Contact: Debbie Viertel
Phone: 863-499-2742
Email: debbie.viertel@polk-fl.net

Or: Stephanie Hallman
Christopher Columbus Awards
800-291-6020
shallman@mmseducation.com

**Lawton Chiles Middle Academy Students Named as One of Six Finalist Teams
in National Science/Community Service Competition,
Win Trip to Walt Disney World®**

***Students develop an economical, indigenous filtration and aeration process to
reduce the organic nutrient content from industrial wastewater***

AUBURN, N.Y.—April 30, 2012—Bright ideas, solid research and teamwork won three students from Lawton Chiles Middle Academy in Lakeland, FL, a spot as finalists in the Christopher Columbus Awards, a nationwide program that challenges middle-school students to explore opportunities for positive change in their communities. Eighth-graders Divya Ravinder, Yasmine Elmasri, Axita Patel, and their coach, Debbie Viertel, made it to the semifinals earlier this month, and now are one of six finalist teams in the country to compete for Gold Medals and U.S. Savings Bonds.

The team became intrigued but troubled by an Environmental Protection Agency (EPA) report on the Internet regarding the impact of high organic nutrient pollution (high levels of nitrogen and phosphorus) in bodies of water in the U.S. These organic nutrients aid algae overgrowth, which could lead to an eco-imbalance - where the fish and other living organisms disappear due to lack of oxygen being consumed by the algae. Industries that discharge their wastewater directly into water bodies (point-source polluters) are the primary cause of the overgrowth. The EPA is trying to create nutrient limits for bodies of water in Florida, which will result in substantially higher wastewater management plant fees for industries that send their wastewater to management facilities.

The team's research included Internet searches, books, as well as interviews with wastewater management plant staff to understand organic nutrient pollution. After testing several combinations of filters and aeration methods, the team developed an economical and indigenous filtration process to reduce the organic content from industrial wastewater as well as an aeration process that increases the dissolved oxygen levels significantly in the filtered water. The results of water tested using their system met EPA standards.

The team remarked, "Implementation of our filtration and aeration process by industries will reduce point-source pollution substantially, preventing the formation and spread of hypoxic zone (a dead zone). The water could be discharged directly into water bodies. It will also reduce the wastewater management fees for those industries that send their wastewater to wastewater management plants."

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FEATURING THE COLUMBUS FOUNDATION COMMUNITY GRANT

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A panel of community leaders, scientists and experts in science education selected this idea as one of the top six entries in the U.S. More than 800 students and coaches participated nationwide.

Team Wins a Trip to Walt Disney World®

The team and their coach won an all-expense-paid trip to the *Walt Disney World®* Resort, where they will compete in the **Christopher Columbus Awards National Championship Week**, June 10-15, 2012, plus a \$200 grant to further develop their project.

Each member of two Gold Medal winning teams will receive a \$2,000 U.S. Savings Bond.

The finalists will also attend the **Christopher Columbus Academy**, a custom-designed educational program. Conducted by scientists, engineers and educators, the program reveals the science and technology behind the thrills and excitement of the *Magic Kingdom®* and *Disney's Hollywood Studios®*.

Positive Community Change

The Christopher Columbus Awards challenge teams of middle-school students to explore and discover opportunities for positive change in their communities using science and technology. The program is now in its 16th year and has attracted more than 19,000 students from diverse backgrounds all across the U.S. The program is sponsored by the Christopher Columbus Fellowship Foundation (www.columbusfdn.org) and is endorsed by the Association of Middle Level Education. Past winners have included a team from San Diego that has secured a provisional patent for a specialized seat cushion design that uses sensory feedback to train people to maintain a healthy posture while sitting at a computer, and a group of students from Illinois who developed a multifaceted recycling awareness campaign that increased recycling in their community by 60% in just four months.

Strong Participation from Girls, Minorities

The program attracts many students who may not typically enter a science competition. More than half of the entrants are girls, and nearly a fourth are from diverse ethnic and cultural backgrounds, statistics that are higher than those of most science competitions. The Christopher Columbus Fellowship Foundation believes the teamwork aspect and community focus draw a broader range of students to enter.

About the Sponsor

The Christopher Columbus Fellowship Foundation is an independent Federal government agency created by Congress in 1992 to encourage and support research, study and labor designed to produce new discoveries in all fields of endeavor for the benefit of mankind. The Foundation has established *Frontiers of Discovery—Work in Progress* and *Discover the Future* programs that recognize “cutting edge” innovations, innovative ideas of America’s youth, and honor teachers. These programs include the *Agriscience Awards*, *Homeland Security Award*, *Life Sciences Awards* and *Christopher Columbus Awards*.

For more information, call 1-800-291-6020 or visit www.christophercolumbusawards.com.

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