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**Project Developed by Los Angeles Middle-School Students
Wins Gold Medal in National Science/Community Service
Competition Held at Walt Disney World®**

Students develop dome-shaped solar collector to increase use of solar energy.

AUBURN, N.Y.—June 24, 2011—Bright ideas, solid research and teamwork won three students from Mirman School in Los Angeles, Calif., a Gold Medal and a \$2,000 Savings Bond in the Christopher Columbus Awards, a nationwide program that challenges middle-school students to explore opportunities for positive change in their communities.

Seventh-graders Jonathan Berman, Benjamin Kotzubei, and Austin Veseliza, and their coach, Deborah Beckmann, made it to the finals last month by developing an innovative new solar collector that they believe could increase the use of solar energy.

Like many young people who have grown up with the possibility that the world soon will be blighted by the effects of climate change, the team members were concerned about the use of fossil fuels around the globe. The fossil fuels in common usage are known to pollute the environment, contributing to climate change. Moreover, because fossil fuels are non-renewable, their supply is diminishing, creating a potential energy crisis in the not-so-distant future. One obvious solution to both problems is to harness the power of the sun to provide a clean source of energy to power the world. However, the current methods of collecting solar energy are less effective than they can and should be. The team decided to address this issue.

Conventional methods of collecting solar energy utilize flat panels, facing south, tilted at a degree angle equal to the latitude of their place of installation, so that light rays hit the panels at a perpendicular angle at midday. Unfortunately, architectural and topographical restraints often prevent the installation of solar panels in these ideal conditions, affecting their use and efficacy. The students theorized that a three-dimensional solar collector would be able to collect for longer, sustainable time periods at any orientation. Working with an architect and a computer scientist, the team built a solar dome prototype that their testing demonstrated could collect as much energy as a traditional panel at any angle, while taking up nearly 75% less surface area on a roof and without requiring any structural additions to support it.

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A panel of community leaders, scientists and experts in science education judged this idea as one of the top eight entries in the U.S. More than 735 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 competed in the **Christopher Columbus Awards' National Championship Week**, and participated in 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 *Epcot®* and the *Magic Kingdom®*.

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 15th 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 National Middle School Association.

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 has 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*, *Christopher Columbus Awards*, *Homeland Security Awards* and the *Life Sciences Awards*.

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