

U.S. DEPARTMENT OF EDUCATION

GreenRibbonSchools



2013 Green Ribbon Schools

Iowa Honorees

School Honoree

Starmont Community School, Arlington, IA

Vocational agriculture champions renewable energy

The Starmont Community School is a rural public campus comprised of 627 students in grades Pre-K through high school, which serves 47 percent disadvantaged students. The campus, which consists of three attendance centers (Elementary, Middle, and High School) sits on 74 acres of land and includes a butterfly garden, a fruit and vegetable garden, a flower garden, an apple orchard, and a berry patch.

The entire Starmont campus is an extension of the classroom. Students participate in outdoor activities such as a fall prairie burning and spring reseeding, composting, and on-site gardening. The 17 acre agricultural test plot, green house, and gardens are used for learning experiences. Students engage in service projects such as building benches made from concrete and recycled wood along the campus fitness trail.

Elective classes for older students focus on green building, recycling, renewable energy, and sustainable consumption. The school partners with the University of Northern Iowa Center for Renewable Energy and Environmental Education and offers a vocational agricultural course that incorporates renewable energy.

The school used *American Recovery and Reinvestment Act* funds to convert from T-12 to T-8 lighting, equip areas with occupancy sensors, install demand control ventilation, and replace an outdated steam boiler with two energy efficient boilers. School buses run on biodiesel; 100 percent of paper is post-consumer material; and the campus diverts 39 percent of its waste from landfills through its recycling program.

All students participate in local food taste tests, physical fitness breaks, and interactive cross-age nutrition lessons. Nutrition and fitness is emphasized through the campus' participation in *Fuel Up to Play 60* and through a partnership with the *Northeast Iowa Food Initiative*, a program that provides educational workshops for teachers and students, an *AmeriCorps* member to assist with food preparation once a week, and guidance on nutrition and active living policies. Starmont encourages healthy eating by providing fruits and vegetables during lunch and by offering healthy chicken wraps and fruit at concession stands.

District Honoree

Des Moines Independent Community School District, IA

Post-secondary partners to provide effective sustainability professional development

“Our district has saved \$2.4 million in energy costs since 2007, the

Des Moines Independent Community School District (DMPS) serves more than 32,700 students in central Iowa, 77 percent of which are underserved. DMPS, now over 100 years old, is committed to modifying historic buildings into efficient energy models, implementing stringent plans related to improving the health, comfort, and learning environment of students and staff, and executing ground-breaking new initiatives in environmental and sustainability education. In 2012 DMPS received the Governor's Iowa Environmental Excellence Award and an ASHRAE Iowa Chapter Technology Award. Des Moines Community School District has been recognized by EPA as an *ENERGY STAR* Leader for improving energy efficiency by 10 percent (2010), then 20 percent (2012), and also as an *ENERGY STAR* Top Performer (2011). In 2012, the district was honored as an *ENERGY STAR* Partner of the Year. DMPS has earned *ENERGY STAR* certification for 52 district buildings.

Many DMPS facilities have undergone tremendous renovation. Large scale energy improvements have included HVAC, building envelope, and electrical upgrades. Thirty-three buildings have replaced the traditional boiler system with geothermal systems. When geothermal was not possible, other steps, such as replacing outdated boilers with high efficiency units, were taken. Other facility upgrades have included the installation of double-pane glazed windows and doors with internal insulation and weather stripping, improvements to lighting systems such as installing high-efficiency T8 and T5 bulbs, LED, and motion sensors, and replacing pneumatic controls with Direct-Digital Control technology which can be set to stagger startup

and avoid peak demand. DMPS has saved \$2.4 million in energy costs since 2007, the equivalent of 66 first time teachers.

Two years ago, DMPS implemented single stream recycling and purchased additional recycling containers for classrooms. These efforts have increased the amount of recycled solid waste by 65 percent and have diverted nearly 40 percent of DMPS solid waste from landfills.

In order to implement many of the facilities improvements, DMPS has worked with multiple partners, including Johnson Controls, The Weidt Group, MidAmerican Energy, and The Energy Group, to develop and implement efficiency practices district-wide. For example, DMPS has worked with these partners to design and implement building automation and HVAC controls, review energy practices and options for retro-commissioning, auditing systems and energy consumption with cost/benefit analysis, and to take advantage of energy rebate programs.

DMPS is committed to the health and wellness of its students, staff, and administrators. DMPS tests all buildings for lead and radon; has removed all wooden playgrounds from the system; and does not allow any CCA material on new installations. Nine schools participate in *USDA HealthierUS School Challenge*, four schools participate in *Farm to School*, 28 schools participate in *Iowa Department of Public Health's Pick a Better Snack* program, and 11 schools have gardens. Many schools also work with *AmeriCorps FoodCorps* and *HealthCorps* members and the Dairy Council's *Fuel Up to Play 60*.

Students, teachers, and administrators have collaborated with partners such as the Center for Bio-Renewable Chemicals at Iowa State University for teacher STEM training. It also collaborates with *Symbi*, the *NSF* and the *George Lucas Education Foundation* in order to connect students and teachers scientists in the field, inspire students in green technology, and introduce a project-based AP Environmental Science course at all five DMPS high schools. Instructors of both AP and regular environmental science have trained with The College Board. Many schools have also developed outdoor classrooms in order to encourage outdoor learning experiences. Hundreds of DMPS students participate in environmentally-focused service learning projects annually.