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FOCUS ON: GREEN SCHOOLS

'Green Schools' Go on National Display

'Green' modular unveiled

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Washington

The impact and design features of the growing number of environmentally sustainable school buildings are <u>on display at the National Building Museum</u> as part of an exhibit on green school space.

The exhibit, which opened earlier this month, also houses the first display of "Sprout Space," a new sustainable modular classroom designed by the Chicago-based architecture firm Perkins+Will. Featuring solar panels, a low-flow toilet fed by rainwater, and large glass doors and skylights, Sprout Space is designed to improve health and educational outcomes, the firm says, while also reducing the cost of construction and eliminating energy costs.

Part of a museum series focused on sustainable design, the exhibit showcases 41 schools.

"It's amazing to see how far this movement has come," said Rachel Gutter, the director of the Center for Green Schools at the U.S. Green Building Council, based in Washington.

The opening coincides with the release of a report from New York City-based McGraw-Hill Construction focusing on the <u>financial</u>, <u>health</u>, <u>and academic benefits of green schools</u>.



Inside the Sprout Space classroom, a visiting kindergarten class from Peabody Primary Campus in the District of Columbia works on building a small city out of twist-ties, candy boxes, and paper-towel rolls.

-Lance Rosenfield/Prime for Education Week

As many as 45 percent of new school projects and retrofits undertaken in 2012 were "green," according to Michelle Russo, a co-author of the report and the director of green content and research communications at McGraw-Hill Construction, a publisher of construction-industry news and information.

As defined in the report, a green school is one that is certified by Leadership in Energy and Environment Design, or LEED, a program run by the Green Building Council, or otherwise energy- and water-efficient and designed to foster air quality and conservation.

Chase W. Rynd, the executive director of the National Building Museum, an independent nonprofit institution chartered by Congress, noted that educators are often more understanding of the multiple benefits of green design than leaders in other sectors are. School administrators, Mr. Rynd said, tend to be "as interested in the health and learning benefits of buildings" as in "the financials."

Health and Learning



Sprout Space, a sustainable modular classroom, is among the highlights of a new exhibit on green school spaces at the National Building Museum in Washington. Its outdoor seating and whiteboards are meant to encourage teachers to take students outside for lessons.

-Lance Rosenfield/Prime for Education Week

Schools are investing significantly in green buildings, according to the McGraw-Hill report, which drew from the results of a survey of 498 architects, university and K-12 school officials, and construction professionals. A third of the 137 K-12 school officials, for instance, said that 90 percent of their building work could be considered "green."

Those respondents were drawn to sustainable buildings for a variety of reasons: to improve their schools' reputations, enrollments, and finances, and their students' and staffs' health and productivity. Ninety-one percent said they believed that green schools improve students' health and well-being. Sixty-nine percent said green practices improved their schools' reputations and attractiveness.

The school officials surveyed cited finances as the biggest barrier to creating green buildings. But most respondents said they saw energy costs drop after construction.

There is a need for more research and metrics to clarify just how such buildings affect students' learning and health and schools' financial outcomes, according to the report.

But Darryl Alexander, the health and safety director of the American Federation of Teachers, says in the report that teachers often find that "the natural lighting, the acoustics, the air quality, and comfort really allow them to focus on their jobs more easily."

Sprout Space



Allen W. Post, the lead architect for Sprout Space, poses at the museum. The contest-winning unit was designed by the firm Perkins+Will.

-Lance Rosenfield/Prime for Education Week

The National Building Museum exhibit showcases health- and sustainability-focused school programs, such as in-school worm composting, alongside design features like waterless urinals and acoustics-enhancing walls.

The Sprout Space classroom, which was conceived as part of a contest run by <u>Architecture for Humanity</u> and the <u>Open Architecture Network</u>, San Francisco-based nonprofits, exemplifies many of the features highlighted in the exhibit and the report.

Its solar panels supply enough energy to power the entire classroom. The low-flow toilet runs with water collected through a rainwater-collection system. Large French doors made of glass and a row of skylights fill the room with daylight. And an outdoor whiteboard is set on a wide porch, encouraging teachers to bring students outside.

Architect Allen W. Post, who led the design of Sprout Space, said that bringing innovative green and educational design practices together in the modular classroom is worthwhile because as many as 7.5 million U.S. students attend classes in temporary classrooms.

Many of those are in use far longer than they're initially intended to be, he said: "In reality, there's no such thing as a five- to 10-year classroom."

Sprout Space is designed to last 40 years, and the architect said it is meant to be cost-conscious, quick to build, and adjustable to the needs of different schools.

The Sprout Space modular classroom will be used this year for programs at the National Building Museum, and Mr. Post said several districts have expressed interest in installing the modulars in their schools.

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