WHY GREEN SCHOOLS?

FACT: Approximately 25 percent of Americans go to school every day as students, teachers, staff or administrations. *(The Center For Green Schools, www.centerforgreenschools.org)*

FACT: According to the U.S. Environmental Protection Agency (EPA), half of this population may be exposed to polluted indoor air, lead, asbestos, chemical fumes, pesticides, molds and other toxins, along with overcrowding and poor sanitation.

FACT: The American Lung Association has found that American school children miss more than 14 million school days a year because of asthma exacerbated by poor indoor air quality.

FACT: Approximately 50% of all illnesses are either caused or aggravated by Indoor Air Quality. *(ACAAI, American College of Allergy, Asthma & Immunology)*

Some 55 million students and 5 million faculty spend their days in schools that are too often unhealthy, restrict their ability to learn, require unsustainable amounts of resources to construct and maintain, and contribute substantially to environmental problems such as pollution and climate change.

Not surprisingly, a large number of studies have found that schools across the country are unhealthy — increasing illness and absenteeism and bringing down test scores. Safeguarding the health of America’s schoolchildren must be central to a high-quality education. Yet our schools get dismal grades in environmental practices:

- Schools use cleaners and pesticides with neurological and reproductive toxins, which are dangerous to both children and adults.
- Poor indoor air quality and nutrition at school are linked to soaring asthma and childhood obesity rates.
- American schools consume enormous quantities of paper and energy, produce tons of waste and carbon emissions, and rarely purchase environmentally-friendly products.

But here’s the good news, research now shows that greener, sustainable school environments can save money and resources, expand learning, and raise test scores while improving health. And ultimately, sustainable schools teach children to become good environmental citizens and will empower them to make a difference in the environment.
At the heart of the Green Schools movement is the idea that the school environment cannot be separated from the academic agenda. Initially, the green school movement was more of a "clean school" movement, focusing on removing toxins, such as lead, asbestos and mold, from a child's learning environment.

Today, the phrase "Green School" has expanded to encompass much more, including environmentally sound architecture and building materials, the use of nontoxic products to clean the school and a heightened sense of ecological awareness in the school and classroom which includes energy and water conservation, developing "green" school grounds and we can’t forget: Reuse, Recycle and Reduce.

School greening is quickly becoming more than a trend. It is now the method of choice for providing healthy, comfortable and productive learning environments while saving energy, resources and money. School greening is also playing a very important role in preparing the youth of today for the green jobs of tomorrow by teaching children to become environmental citizens.

Environmental education is critical to a Green School initiative and future generations. Programs of study that focus on the environment and sustainability should involve the children in greening their school. Promoting environmental education through hands-on projects, with measurable results will help students' develop strong civic skills, environmental stewardship and workforce preparedness.

**Elements of a Green School*  

- Conserves energy and natural resources  
- Saves taxpayer money  
- Improves indoor air quality  
- Removes toxic materials from buildings  
- Employs daylighting strategies and improves classroom acoustics  
- Employs sustainable purchasing and green cleaning practices  
- Improves environmental literacy in students  
- Decreases the burden on municipal water and wastewater treatment  
- Encourages waste management efforts to benefit the local community and region  
- Conserves fresh drinking water and helps manage stormwater runoff  
- Encourages recycling  
- Promotes habitat protection  
- Reduces demand on local landfills

*See: http://www.centerforgreenschools.org/green-school-interactive.aspx
Scientific evidence now exists that chemicals, air quality and other hygiene factors compromise not only the environment, but student attendance, concentration, productivity, and even test score performance. In *Greening America’s Schools, Costs and Benefits*, Gregory Kats examined 30 LEED-certified schools built in the United States during the years 2001 through 2006 and had the following findings:

**Reduced Student Sick Days and Improved Children’s Health.**

Students in America miss approximately 14 million school days per year because of asthma, according to the U.S. Centers for Disease Control and Prevention. Controlling exposure to indoor environmental factors, such as carbon monoxide, dust, and pollen, could prevent more than 65 percent of asthma cases among elementary school-age children, reports the American Journal of Respiratory and Critical Care Medicine. One of the schools in Kats study reported a 15 percent drop in absenteeism after becoming a green school.

**Improved Student Test Scores.**

By improving indoor air quality through the exclusion of toxic materials and improved ventilation, green schools can improve the health of students, faculty and staff and decrease absenteeism. More time in school translates into increased productivity and enhanced student performance. One school reported significant improvements in both health and test scores.

**Higher Teacher and StudentRetention.**

Green schools improve more than just student performance. Teachers in green schools report they are more satisfied with their school environments than teachers in conventional schools, helping to improve teacher retention.

**Impressive Energy and Water Savings.**

On average the green schools used about one-third less energy and water than conventional schools.

**Significant Cost Savings.**

According to Kats, on average green schools cost less than 2 percent more to build but use 33 percent less energy and 32 percent less water than conventionally constructed schools, significantly reducing utility costs over the average 42-year lifecycle of a school. On average, green schools save $100,000 per year on operating costs — enough to hire at least one new teacher, buy 200 new computers, or purchase 5,000 textbooks.

**Green Schools Protect the Environment.**

By decreasing reliance on fossil fuels, Green Schools release less greenhouse gases and pollution in the environment in addition to the environmental benefits generated from reduced energy and water usage. Green schools also lessen environmental impacts through recycling efforts, native and adaptive landscaping, and practices that reduce the demand on municipal infrastructure. Green buildings are built or retrofitted with sustainably produced, recycled and recyclable materials and products.

What resources are available for schools to start the “greening” process?

The Center for Green Schools  [http://www.centerforgreenschools.org]
Green Clean Schools  [http://healthyschoolscampaign.org/programs/gcs/]
Green Education Foundation  [http://www.greeneducationfoundation.org]
Green School Initiatives  [http://www.greenschools.net/]
Eco-Schools USA  [http://www.nwf.org/Global-Warming/School-Solutions/Eco-Schools-USA.aspx]
Maryland Association for Environmental and Outdoor Education  [http://maeoe.org/greenschools/]
EPA Healthy School Resources  [http://cfpub.epa.gov/schools/index.cfm]

What grants are available for greening my school?

There is a guide developed by the Chesapeake Bay Foundation featuring information on many green regional and national grants as well as tips on writing a successful grant ([http://www.cbf.org/Document.Doc?id=23](http://www.cbf.org/Document.Doc?id=23)) which could be very helpful along with the grant sources listed below.

Local:
The Cheasapeake Bay Trust  Mini Grant Program  [http://www.cbtrust.org/site/c.miJPXPCJnH/b.5368633/k.BDEA/Home.htm]

Keep Maryland Beautiful Program:
The Margaret Rosch Jones Award  [http://www.dnr.state.md.us/met/mrjaward.html]
The Bill James Environmental Grants  [http://www.dnr.state.md.us/met/bjegrants.html]
Maryland Urban and Community Forest Committee  [http://www.dnr.state.md.us/forests/programs/urban/pdfs/MUCFCGrantApplication.pdf]
U.S. Fish & Wildlife Listing of National & Regional Funding Sources  [http://www.fws.gov/chesapeakebay/school/fund.htm]

National:
DonorsChoose.org  ([http://www.donorschoose.org/](http://www.donorschoose.org/))
Toyota TAPESTRY Grants For Teachers  ([http://www.nsta.org/pd/tapestry/](http://www.nsta.org/pd/tapestry/))

How are schools certified as green in the U.S.?

With approximately 99,000 public schools in the United States, the greatest opportunity for state legislators to promote green schools to children, teachers and communities in their state is to encourage existing schools to go green. Most schools that undergo green retrofits and renovations will yield significant utility cost savings and improve occupant comfort and health.

The federal government or EPA does not have a green building/school certification program. However, there are a variety of private and non-profit green building certification programs in the marketplace including the U.S. Green Building Council’s LEED for Schools (Leadership in Energy and Environmental Design). The LEED for Schools Rating System recognizes the unique nature of the design and construction of K-12 schools and addresses issues such as classroom acoustics, master planning, mold prevention and environmental site assessment. Other non-profit certification programs include National Green Ribbon and Collaborative for High Performance Schools (CHPS).

Many state and local governments have green school state programs. See the local list below: