THE GREEN DESIGN LAB

SCHOOLS IN THE US SPEND $7.8 BILLION ON ENERGY EACH YEAR.

THE FINANCIAL BENEFITS OF GREENING SCHOOLS ARE ABOUT $70 PER SQUARE FOOT

THE AVERAGE PUBLIC SCHOOL BUILDING IS 54 YEARS OLD.

YOUR BLUEPRINT FOR A HEALTHY GREEN SCHOOL

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GREEN ENERGY, ARTS & EDUCATION CENTER

AMERICAN SCHOOL CHILDREN MISSED 12 MILLION DAYS OF SCHOOL IN 2000 DUE TO ASTHMA.

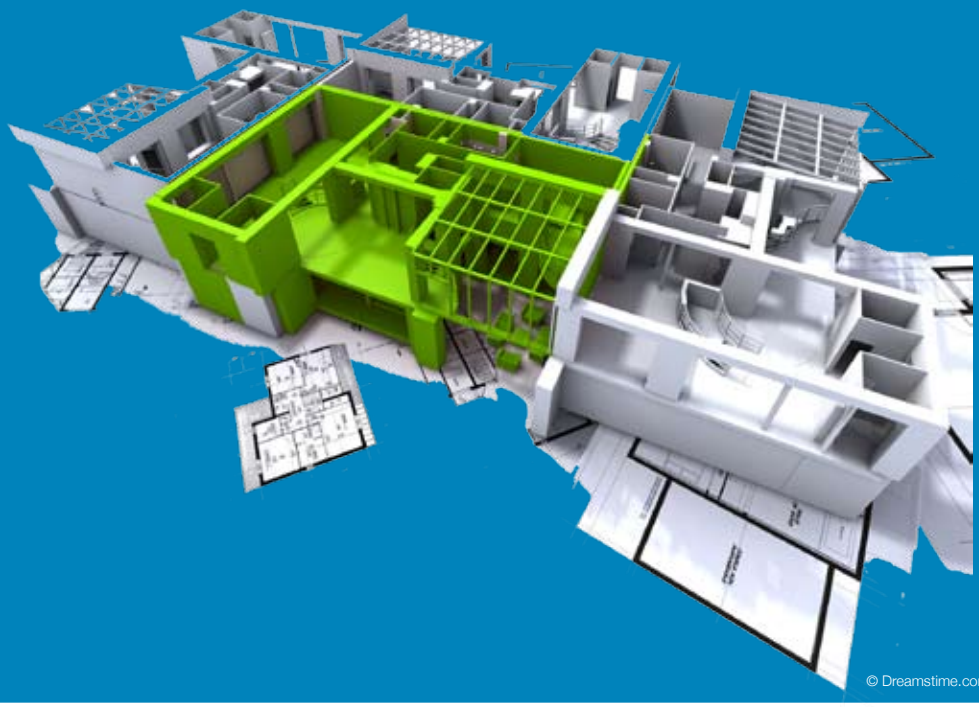
THERE ARE 97,382 PUBLIC SCHOOLS IN THE UNITED STATES.

Source: USGBC

SCHOOLS COME IN MANY DIFFERENT SHAPES AND SIZES

the green design lab™

BUT DON'T WORRY, SOLAR ONE IS HERE TO HELP YOU FIGURE OUT THE BEST GREENING STRATEGY FOR YOUR SCHOOL COMMUNITY.



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WHAT IS THE GREEN DESIGN LAB?

The Green Design Lab is a curriculum resource and guide for making your school a healthy and green place to work and learn.

Using a creative approach to problem solving and sustainability education, the Green Design Lab focuses on your school building as a laboratory for hands-on learning about green technologies, design process, engineering and applied science.

The goal is to help students make connections between the buildings we use every day and their ecological footprint. Perfect for a range of settings and complete with an adaptable array of lesson plans, projects and ideas for student's to engage in, the Green Design Lab is the starting point for a real dialogue about what sustainability means for your health and local community.

The Green Design Lab is also a great way to introduce students to the emerging fields of green jobs, providing opportunities to learn practical skills ranging from building performance to horticulture and urban farming. The Green Design Lab kit provides you with a:

1. **TEACHERS GUIDE**
2. **STUDENT WORKBOOK**
3. **PROFESSIONAL DEVELOPMENT TOOLS**

- → **6 Units with hands-on activities, readers and assessments**
- → **Aligns with National Science & STEM Standards**
- → **Adaptable lesson plans for grades K-12**

ABOUT SOLAR ONE:

Solar One is New York City's first solar-powered "Green Energy, Arts, and Education Center". We inspire New Yorkers to become environmentally responsible city dwellers.

Solar One offers innovative programming to K-12 students throughout all 5 boroughs of New York City in the areas of renewable energy, sustainable design, estuary ecology and enironmental art.

The mission of Solar One's education program is to facilitate applied experiential Learning opportunities through science, design, art and entrepreneurship. Our staff of educators are here to help you personalize and make the Green Design Lab an integral part of your school's curriculum and learning objectives.

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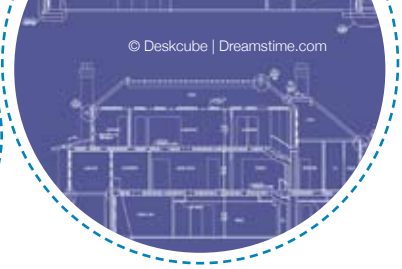
HOW CAN WE HELP YOU GREEN YOUR SCHOOL?



Greening a school is a tough job. We know from experience; so let us help you come up with a plan that works for you and includes your students in the process.

TECHNICAL ASSISTANCE:
Solar One can provide technical assistance in the classroom to come up with ideas for integrating the content in the Green Design Lab into your existing curriculum.

HANDS-ON PROJECTS:
Not interested in doing something in the classroom or changing your curriculum?; no sweat - we'll help you organize a hands-on project that engages your students in a process that is fun and meaningful.

MEETING RESOURCE TARGETS:
Let's talk benchmarks. So you want to reduce energy consumption in your building, tighten those out of control utility bills and start to see some savings? The Green Design Lab helps you 'decrypt' LEED (Leadership in Energy and Environmental Design) standards for schools and create a green dashboard to assess where you're at and the progress you make along the way.

PROFESSIONAL DEVELOPMENT:
Not sure your ready to take on the world of sustainability? Let us help train you and other teachers so that you feel comfortable talking about green as something more than just a color. Our professional development workshops aim to help you create a green action strategy, introduce you to core concepts in environmental science, sustainability education and green jobs literacy.

GREEN JOBS & FUNDING
Still not sure? Consider the Green Design Lab as an investment in your school, from the possibilty of capital improvement grants to new career paths for your students.

		LEARNING OBJECTIVES	SCHOOL GREENING STRATEGY
MATERIALS		• Green building materials • Biodegradability • Sustainable Product Design • Production Life Cycles • Rocks and Minerals	• Green Procurement Plan • Low VOC and Green Seal Standards for Carpet, Flooring and paint • Locally sourced materials
RECYCLING		• Materials Transformation • E-Waste/Greentech solutions • Eco-Impacts of Waste • The Science of Recycling • Cradle to Cradle Design	• Functional Recycling System • Consumables Purchasing Plan: Recycled content and durable goods Compost systems • Waste Stream Audit
ENERGY		• Building performance • Renewable Energy • Energy infrastructure • Solar PV/Thermal Design Installation; Wind energy etc.	• Energy Efficiency Measures • Performance Measurement • On-Site and Off-Site Renewable Energy
WATER		• Water Conservation Strategies • Water Quality and ecology • Water Infrastructure Engineering • Watersheds and Hydrology	• Plumbing Fixture and Fitting Efficiency • Water Performance Measurement • Water efficient landscaping
AIR QUALITY		• Daylighting • Weather Patterns • Climate Change • Environmental Toxins • Air Pollution	• Green Cleaning Policy • Minimum Indoor Air Quality (IAQ) Performance • Ventilation
FOOD		• Sustainable Food Production • Agriculture • Integrated Pesticide Mang. • Native Plants • Organic Gardening	• Sustainable Purchasing—Food • School Garden • Local and organic foods • Kitchen compost system

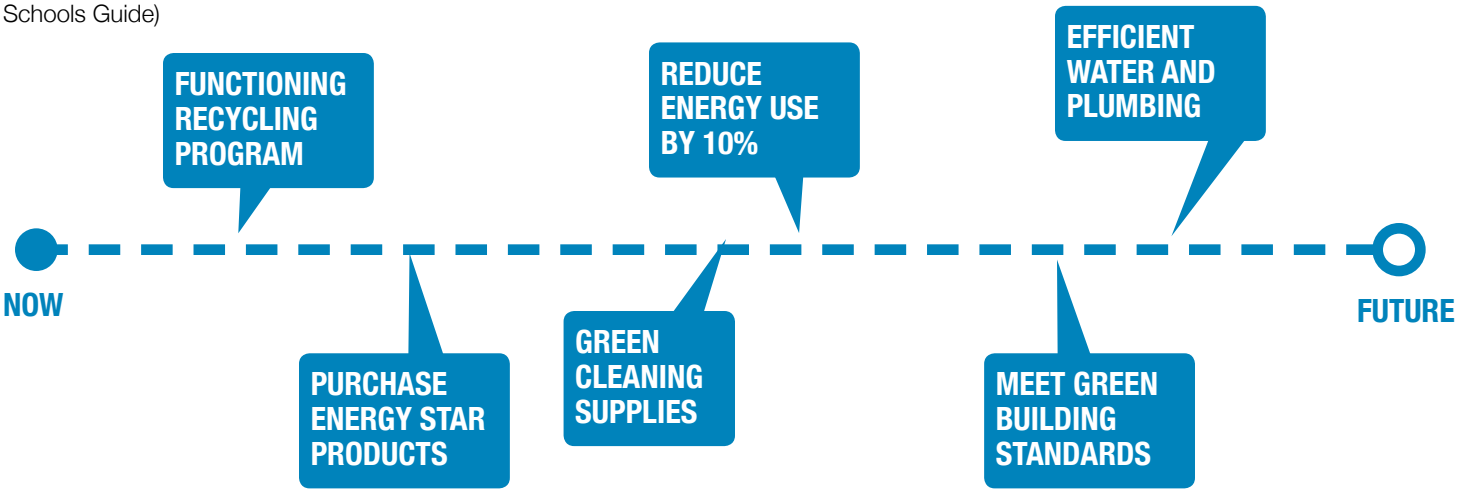
SO WHAT ARE MY STUDENTS GOING TO LEARN ABOUT AND HOW IS MY SCHOOL GOING TO BE GREEN?

The idea behind the Green Design Lab is simple: **empower students to understand how the spaces around them are designed so that they are can make positive changes the whole school community can benefit from**. If we approach the greening of the school as a collaborative design challenge, we can all learn together how to make a healthy and sustainable school work for the people who use it every day.

Sound like a tall order? Well it won't be an easy task, so that's why we're here to help with ideas for projects and engaging activities you can customize! Let's make greening your school relevant so students don't feel left in the dust!

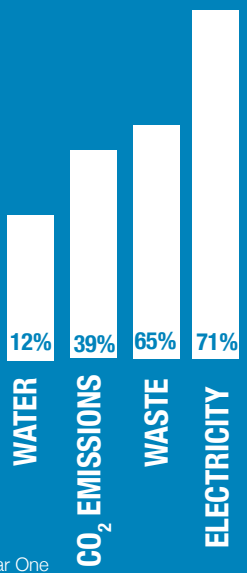
WILL YOUR SCHOOL BE PREPARED FOR LOCAL LAW 86/05 GREEN SCHOOLS REQUIREMENTS?

Local Law 86/05 was enacted into law by the New York City Council in late 2005, establishing a demanding set of sustainable standards for public construction projects in New York City. This local law makes New York City one of the first and largest school districts in the nation to have sustainable school design, construction and operations guidelines required by law. (From the NYC Green Schools Guide)



HOW DOES YOUR SCHOOL STACK UP?

School buildings represent the largest construction sector in the United States - $ 80 billion in 2006-2008. Buildings overall are also responsible for 39% of carbon dioxide emissions in the United States, a major contributor to global warming. (USGBC)



WHY DOES THIS MATTER TO MY SCHOOL COMMUNITY?

Ok, so you've heard of the whole "going green" thing, you've got your tote bag, you try to recycle and you turn the lights out. So what else can you do?

Well, there may not be much you can do by yourself, but as a school community, you can do more than you'd think! Consider for a moment that in the U.S. alone, more that 59 million students, teachers and education employees spend part of their day in schools. And right now more than 25,000 schools throughout America need major repair or outright replacement.

That's a lot of schools. Sounds like a huge problem? Well here at Solar One, we think its a great opportunity. An opportunity to extend beyond recycling and switching out lightbulbs, to a comprehensive exercise in design, critical thinking and problem solving. All of which are essential skills your students need to get into college and a good job.

SOLAR ONE IS HERE TO HELP

So we'll make it simple for you. We want to help green your school and include your students in the process. From roof top gardens, to solar systems, and locally grown food - the possibilities for improving your school building are endless.

Not only this, the learning opportunities that come along with these new technologies and issues are invaluable for students who need hands-on learning, active inquiry and experiences in the real-world to help shape a robust and meaningful relationship with themselves and the world.

So let us give you a hand and introduce what it means to look through those cinder block walls and into a future where your school is a learning tool ready to be explored.

To sign-up your school or learn more visit:

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