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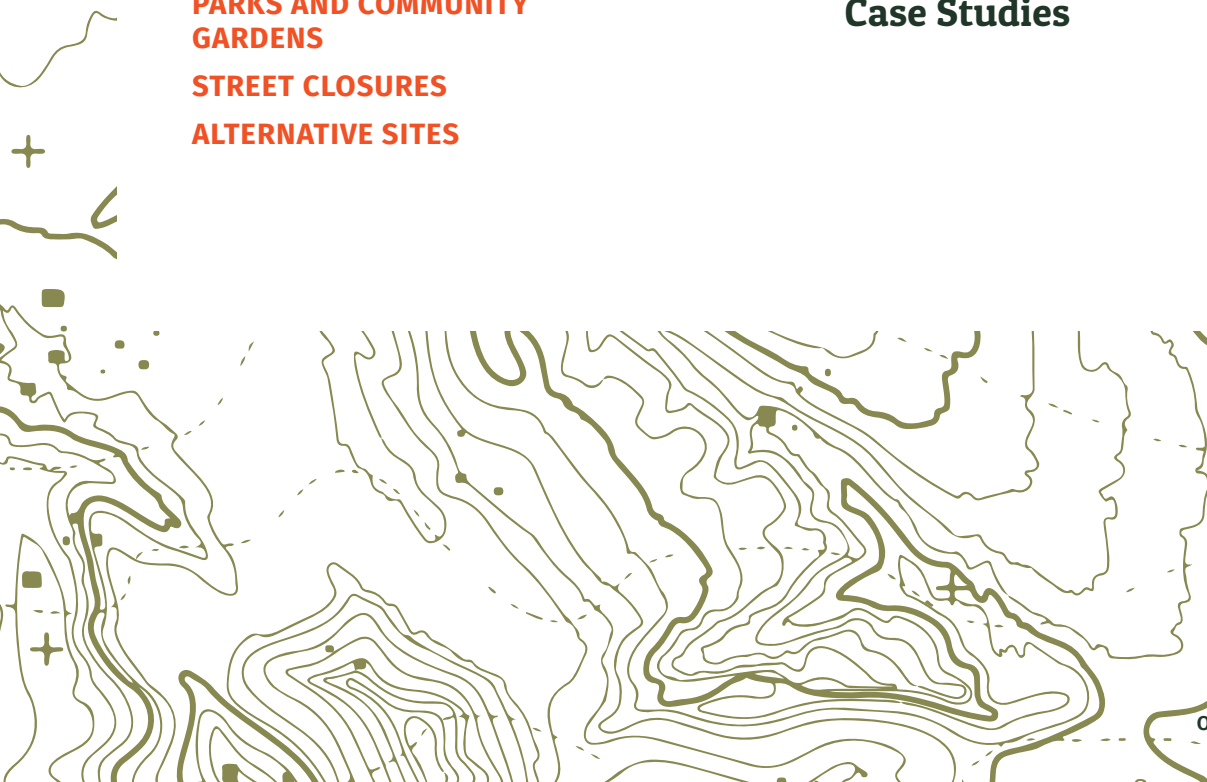
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Outdoor Learning NYC

A TOOLKIT FOR SCHOOLS

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Introduction

In response to the interest in outdoor classrooms and the New York City Department of Education (NYC DOE) policy on outdoor learning — issued August 24, 2020 — the National Wildlife Federation in NYC and GrowNYC School Gardens initiated the development of a New York City specific Toolkit for creating and using outdoor classrooms during the Covid-19 pandemic, and beyond.

Compiled by school partners with expertise in developing and leading outdoor education experiences for students of all ages and abilities, the Toolkit includes guidance, tips, and practical resources for outdoor learning. It details potential sites to utilize as outdoor classrooms and outlines a range of considerations so that schools can center the health and safety of students, staff, and partners.

The Toolkit prioritizes the use of existing, free, or low-cost resources that will help schools in the short term. However, we encourage schools to envision how outdoor experiences can be integrated into educational goals beyond the pandemic, especially schools who already lacked sufficient space for physical and other wellness-related activities outdoors before the pandemic.

While we understand the inherent value of outdoor learning, we recognize that there are challenges associated with this idea. We acknowledge that a school community must consider a range of safety and infrastructure factors when making the decision whether to plan outdoor learning activities and what to prioritize. Each school community must make these decisions based on the needs, concerns, and priorities of staff, students, and families. Our hope is that this Toolkit will provide practical information and resources to schools that have made the decision to plan outdoor activities.

Finally, the reliance on outdoor learning and the resources outlined in this Toolkit are — in no uncertain terms — intended to replace safe, healthy conditions inside the school building. Classes and student groups who use outdoor sites should always have a safe indoor location to access in the event of schedule changes or unpredictable weather or events.

We are grateful to our contributing partners on this project including: Edible Schoolyard NYC, Plant Learn Grow, New York Restoration Project, the DOE's Office of Sustainability, DOE Office of School Wellness Programs, City Growers, FoodCorps, the Trust for Public Land, Audubon New York, Gowanus Canal Conservancy, Brooklyn Botanic Garden, Garden Train (D15 and D3), and parents and teachers from NYC public schools citywide. Special thanks to Cateia Rembert, Liat Olenick, Yadana Desmond, and Fran Agnone for their thoughtful reviews.



PHOTO: JOHANNA ESTERAS

The Toolkit prioritizes the use of existing, free, or low-cost resources that will help schools in the short term.



Why Create Outdoor Classrooms?

During the COVID-19 pandemic, outdoor environments can offer safe sites for student instruction and school activities. Expanding classrooms into outdoor spaces —on and off school grounds— decreases the density of indoor spaces, reduces the risk of virus transmission, and offers a range of health-promoting practices and social-emotional benefits for students and staff, including:

- » Stress Reduction
- » Physical movement at all intensity levels
- » Support for mental health
- » Connection to nature
- » Creative exploration
- » Fresh air and sun to boost the immune system
- » Reduced screen time
- » Safe socialization
- » Opportunities for culturally responsive activities

Outdoor instruction also offers the opportunity to expand educational goals with hands-on, place-based learning activities. Establishing safe spaces around schools can transform school environments into healthier, more resilient school communities. **Moreover, the benefits of outdoor learning will remain beyond the pandemic and—with equitable distribution of resources—can be incorporated into long-term educational plans.**



Equity

Research has shown that green spaces make us healthier and happier. A February 2020 study found that children are happier when they feel connected to nature. Spending time outdoors on a regular basis can have positive effects on children's development and mental health.

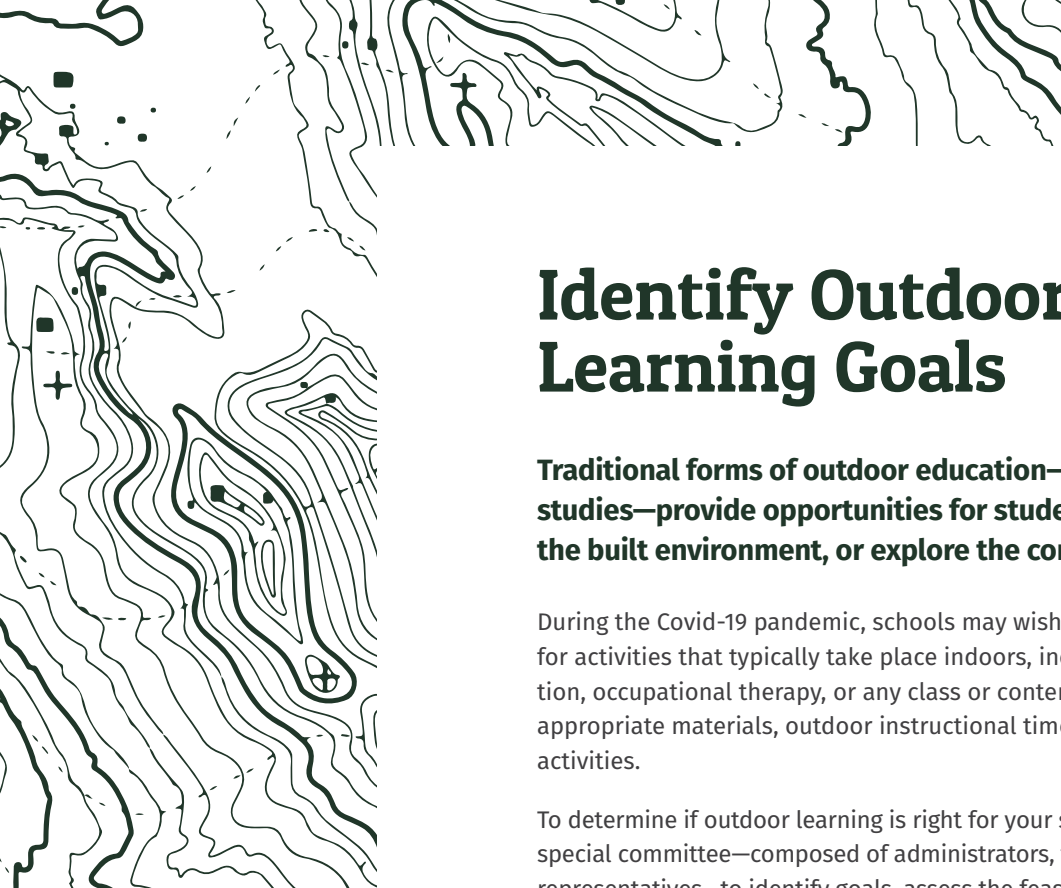
According to the Center for American Progress, in some states, including New York, 90% of people of color live in "heavily modified, nature-poor neighborhoods." The same communities in New York City that lack green space — especially Queens and parts of Brooklyn — are also those that have been disproportionately impacted by COVID-19. Educational inequities have followed the same pattern with low-income students and students of color experiencing academic disruptions due to a lack of access to computers, internet, direct instruction from teachers, safe opportunities for exercise, and months spent in social isolation, often while families experienced job loss, economic hardship and health impacts.

Outdoor learning spaces, especially green spaces, may help to address some of the emotional and psychological trauma, and the inequities, that students, families and staff have experienced as a result of the COVID-19 pandemic and the compounded impacts of institutionalized racism.

The COVID-19 pandemic has presented us with an opportunity to address some of these inequities by creating active learning environments in schools that are safe, inclusive, restorative and intentionally designed to connect students to nature in as many ways and as often as possible. These outdoor spaces can also provide engaging and meaningful learning experiences that are relevant and enriching to students' lives and ideally model solutions to societal problems.

To that end, below are some issues that should be addressed by the New York City Department of Education, in partnership with other agencies and funders, to ensure that equity is integrated in outdoor learning spaces and experiences:

- » Ensure access to a safe outdoor space;
- » Ensure that the outdoor space is accessible to all and can meet the needs of diverse learners and students with physical disabilities;
- » Explore and prioritize access to a green space (a large patch of grass, shrubbery or potted plants/trees, trees to mitigate extreme heat, or access to a community garden or city park);
- » Ensure equitable distribution of funding, guidance, and resources across schools and districts;
- » Ensure that there are adequate staff to bring students outdoors and that staff across all boroughs are provided with training opportunities so they feel safe and able to manage students outdoors;
- » Ensure that all staff are aware of safety and cleaning protocols, have adequate supplies of personal protective equipment (PPE) for themselves as well as students, and that culturally responsive signage is posted to communicate safety protocols.

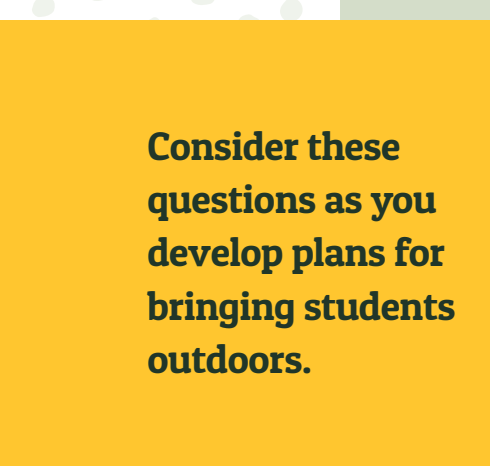
A stylized topographic map with black contour lines on a white background, showing various peaks and valleys. Some areas are marked with small black squares and plus signs.

Identify Outdoor Learning Goals

Traditional forms of outdoor education—often rooted in environmental studies—provide opportunities for students to observe nature, examine the built environment, or explore the community.

During the Covid-19 pandemic, schools may wish to expand the use of outdoor spaces for activities that typically take place indoors, including lunch, recess, physical education, occupational therapy, or any class or content area. With careful planning and appropriate materials, outdoor instructional time can offer a safe alternative to indoor activities.

To determine if outdoor learning is right for your school community, form a team or special committee—composed of administrators, teachers, custodial staff, and family representatives—to identify goals, assess the feasibility, and address key issues at your school. An existing School Wellness Council, School Safety Committee, or Garden Committee may be a good starting point. Survey staff and families to understand their needs and concerns. **Keep in mind that plans can be implemented in phases; start small and expand when your school is ready (see the Case Studies and Sample Plans section for ideas).** Build in time and flexibility to your school plans to incorporate feedback from students, teachers, families, and custodial staff to troubleshoot issues as they arise.

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Consider these questions as you develop plans for bringing students outdoors.

Every school is different. Tailor your outdoor plans to the shared goals and needs of your school community. Consider these questions as you develop plans for bringing students outdoors.

- » What are our **health and safety concerns** (see the list of considerations in the Site Inventory section)?
- » How have we **previously used** the school grounds or outdoor spaces for student learning and activities?
- » What are **opportunities** to bring students outdoors in the short-term? What can we implement immediately with no additional funding or resources?
- » What types of **activities** should be prioritized for outdoor instruction? How can outdoor spaces be used to teach or enhance existing curricula?
- » What are the opportunities to use the outdoors during **winter months**?
- » How can **community-based partners, families, or volunteers** support outdoor learning or activities?
- » What types of resources will we need to implement a **long-term vision** for outdoor learning?

Site Inventory: Selecting Sites on the School Grounds

To identify spaces for outdoor learning, conduct a site inventory of the school grounds.

Fenced play yards, interior courtyards, or green spaces with shade make ideal locations for student activities or learning and, in many cases, can be set up for instruction with free or low-cost resources. If your school is in a co-located building or campus, coordinate the use of outdoor spaces during building council meetings. Sites on the school grounds may include:

- » **School Gardens**
- » **Play Yards, Fields, Open Spaces, Parking Lots**
- » **Rooftops**

More information about each option is below. Green Schoolyards America has developed a **Campus Assessment Tool** which may help your school select locations on your campus.

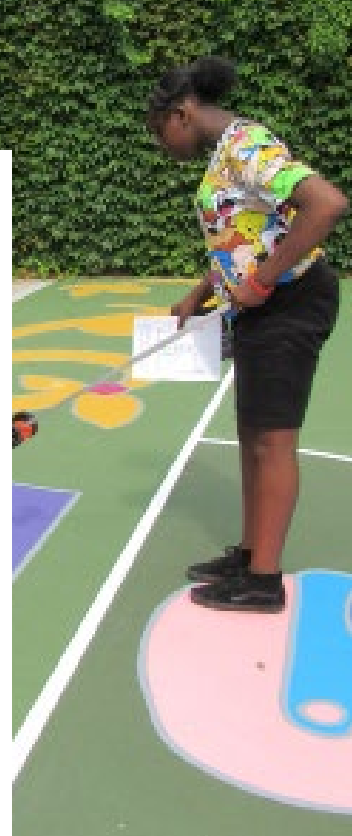


PHOTO: JAN COHEN

For each potential site on the school grounds, consider the following factors:

- » **Physical Distancing:** How many groups can use the space if students and teachers maintain 6-12 feet of physical distancing, depending on the activity? State guidance for P.E., band, and dance may require up to 12 feet, depending on the activity. Find different class configurations illustrated [here](#).
- » **Accessibility:** Is the site accessible to students who use wheelchairs or have special needs?
- » **Shade:** Are there existing trees or landscaping that can provide shade or serve as a barrier between groups?
- » **Noise and Distractions:** Which sites have the most noise or distractions? Plan to use louder sites for movement-based activities; use quieter sites for learning or studying.
- » **Facilities Management:** Do facilities managers use this site for deliveries, waste management, or other essential services? Check in with custodial staff to make sure the sites do not interfere with building operations.
- » **Safety:** What are potential hazards or risks in this location? Use the table on the following page to address security and environmental concerns.



Additional Factors to Consider for Each Potential Site

ENVIRONMENTAL CONCERNS	SECURITY CONCERNS	GENERAL
Is the space free from fear of violence, harm or crime?	Does the space provide adequate fencing? Are there gaps?	Does the space have access to bathrooms?
Is the space free from health hazards (toxins, sharp objects, trash)**?	Is this space compliant with Avonte's Law?	Does the space have access to handwashing stations?
Is the space free from poor air quality?	Is there enough personnel to monitor street closures?	
Is the space free from excess noise or odors (or the ability to mitigate)?	Is there access to indoor space in the event of unanticipated weather or unexpected circumstances?	
Does the space have access to shade?		

***Please note: Many schools located in densely populated areas do regular safety sweeps before bringing students into the space. This is especially important for street-facing outdoor spaces.*

School Gardens

Depending on its size, an existing school garden is an ideal space to set up an outdoor classroom. Gardens may already have shade or infrastructure for seating. Additionally, plants, ecological phenomena, and gardening activities can be integrated into a range of curriculum content areas.

If your school does not have a garden, it can be a worthwhile long-term investment that can enhance student learning well beyond the pandemic. See the **Resources** section for guides, organizations, and grants that can assist your school community.

Play Yards, Fields, Open Spaces, and Parking Lots

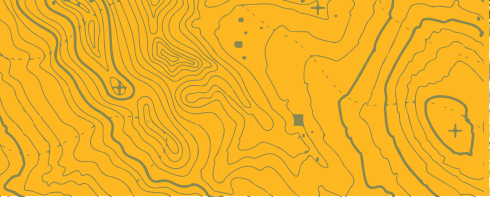
Large open spaces and play yards can potentially support several student groups concurrently. Measure the sites and note how the space is used to determine the types of activities and number of groups it can accommodate.

If you plan classroom spaces, consider how weather or visual distractions can affect students' ability to concentrate; these spaces may require the use of shade structures or other types of infrastructure to make them more comfortable for learning. If multiple groups will use the site at the same time, be sure to distinguish each space with clear boundaries, designated pathways, and sound buffers, if possible.

Rooftops

Many schools in New York City have vibrant rooftop gardens. However, the requirements to utilize rooftops as legal occupancy spaces can be limiting for most schools. The majority of rooftops are not viable spaces for gathering or gardening unless they have specifically been designed or retrofitted for such use. Please find more information [here](#) and refer to the School Construction Authority Guidelines on their website:

- » **NYCSCA Design Requirements: Table of Contents**
- » **Design Requirements: Building Envelope** (Please see section 4.0 on Rooftop Play Areas for a description of the design and approach)



Community Spaces and Alternative Sites

For schools without outdoor space, local parks, community spaces, and alternative sites may be available.

NYC Parks and GreenThumb Community Gardens

Schools planning to utilize outdoor learning spaces should fill out the [outdoor learning survey](#) indicating which park or community garden they'd like to use. Once the request is submitted, it will be reviewed by NYC Parks Special Events and then NYC Parks GreenThumb. Please note that only one request for a park will be considered. Please only list one Parks location.

While GreenThumb community gardens have been given permission to reopen, reopening is solely at the discretion of the garden group. Many are opting to remain closed due to Covid-19. Strict restrictions on group size and events are still in place, as of November 2020.

Street Closures

Please note: The Department of Transportation and the Department of Education have created a pathway for schools to request street closures. Priority will be given to schools in the 27 neighborhoods disproportionately impacted by Covid-19 and without access to outdoor learning locations on school grounds.

- » The process to request street closures is done through [a survey](#) issued to principals.
- » While the process is streamlined, the rules around street closures still apply (i.e. the street must not be on a bus route or have emergency services like precincts, firehouses, or hospitals).
- » More information about the DOE's Outdoor Learning Initiative can be found [here](#).

Alternative Spaces

In the event that school grounds, street closures, parks or community gardens are unavailable, there may still be options available for outdoor classrooms. Many schools have repurposed paved areas like parking lots and alleyways and transformed them into green spaces for outdoor learning.

[GoogleMaps](#) is a great tool to identify open space. Select "Satellite View" to look for open space or open green space that may belong to neighboring businesses, community organizations, places of worship, etc.

If you have identified a space, but need help identifying the owner of the site, the GrowNYC School Gardens team may be able to help you. Please contact growtolearn@grownyc.org.

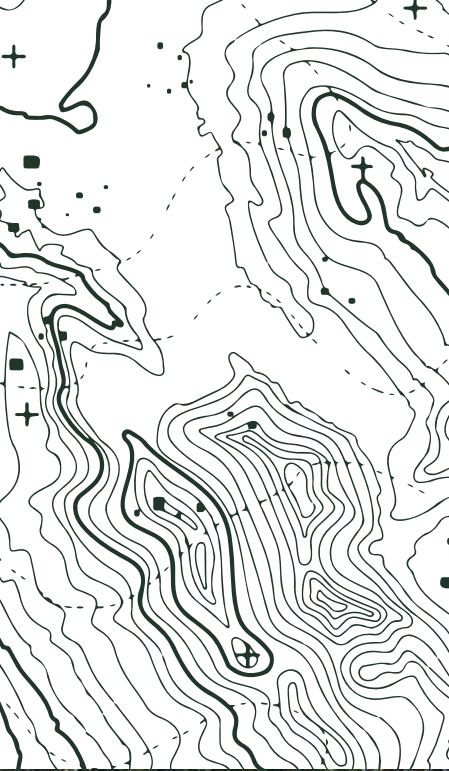


PHOTO: NWF



Priority will be given to schools in the 27 neighborhoods disproportionately impacted by Covid-19 and without access to outdoor learning locations on school grounds.





Outdoor Classroom Infrastructure: Setting up the Outdoor Classroom

There are many creative ways to set up an outdoor classroom! Green Schoolyards America has a guide to **outdoor classroom infrastructure** (including a cost estimate guide) which may be a helpful resource. An outdoor learning space may include:

- » Seating
- » Shade Structures and Tents
- » Teaching Supplies

Cost is always a factor when planning your space. We've broken down ideas for low, medium, and higher cost options for seating, weather protection, and teaching supplies.

Seating

Free to low cost seating options include repurposing existing desks and chairs, colored chalk to mark safe distance, existing gym equipment (lily pads, yoga mats, gym mats), tarps (for shade structures, or cut into squares for seating), picnic or beach blankets. Keep in mind that current DOE guidelines prohibit the use of shared equipment so each item would have to become part of an individual student's kit or disinfected after each use.



PHOTO: CARA SCLAFANI

FREE OPTIONS	LOW COST	MEDIUM-HIGH COST
Existing desks and chairs	Buckets + Milkcrates (Both can be used for gardening later).	<u>Picnic Tables</u>
Colored chalk (for 6 feet markers)		<u>Benches</u>
Gym equipment: yoga mats, lily pads, mats	Straw bales (can be sourced from garden supply stores or farms and used in gardens later)	Built materials: picnic tables, benches, etc (see plans below)
Tarps cut into squares	<u>Sit upons</u> , which can also be made from using upcycled materials. Find examples <u>here</u> and <u>here</u>	
Classroom play mats		
Upcycled towels, beach mats, t-shirts		
Cinder blocks		
Tree stumps		

Building your own outdoor furniture typically costs less than buying ready-made items. The following are instructional designs for seating and tables for school and community gardens.

BENCHES	TABLES	SHADE STRUCTURES	OTHER
<u>Super Simple Bench</u> <u>Garden Bench with Back Support</u> <u>Storage Bench</u> <u>Tree Bench</u> <u>\$15 DIY Garden Bench</u>	<u>DIY 6' Picnic Table</u> <u>Children's Picnic Table</u> <u>ADA Picnic Table</u> <u>Spool Tables</u>	<u>Tarps</u> as shade structures. <u>Double Shade Structure</u> <u>Double Shade Structure with Metal Roof</u> <u>Winged Structure:</u> Designed for use with <u>rain water harvesting systems</u> , which can be added later.	<u>Kaboom Outdoor Chalkboard</u> <u>Kaboom Enhancement Projects</u> <u>How to Build an Outdoor Classroom</u>

Shade Structures and Tents

Tents, tarps, shade sails, and shade structures are great resources for weather protection. Another perk to shade structures is that many can include a rainwater harvesting system later to help save valuable water for use in the garden.

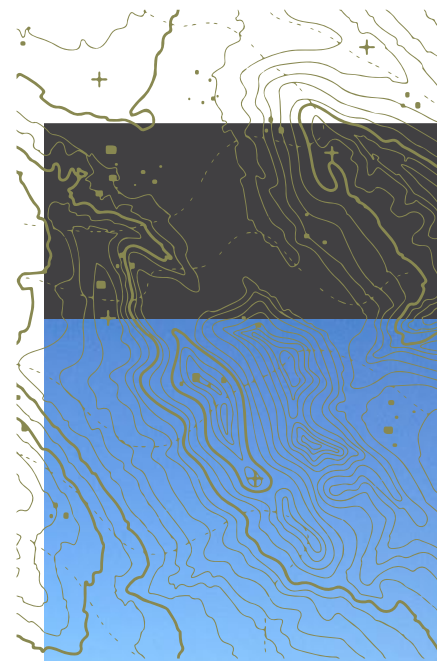
As you get started, please share your ideas (and pictures!) with us, so that we may include them here for other schools to enjoy.

Please note that the Department of Education has issued a policy surrounding tents that can be found [here](#). You will need a DOE login in order to access the information.

Safely Securing Tents

Tents must be weighed down to prevent them from blowing away and secured for the safety of all participants.

- » One person 10 ft x 10 ft tent set-up and take-down: [Tent set-up video tutorial](#)
- » **Weigh down your tent!** Each 10 ft x 10 ft tent area should be weighed down by 100 lbs, distributed evenly. GrowNYC uses the following [weight and tie down requirements](#) for our market tents.



Outdoor Teaching Supplies

The full range of teaching supplies won't be accessible in the outdoor classroom. However, many low-cost, portable supplies can easily be used for outdoor instruction. Consider how outdoor elements and natural phenomena can also be incorporated into teaching plans. To prevent sharing of materials, use backpacks or bags to create **outdoor learning kits** for students; they can carry their bags outdoors. In addition to the instructional supplies listed below, student kits can also include: reusable water bottles, hats (for sun protection), sunscreen, hand sanitizer, and other personal items.

Supplies for Students

- » **Clipboards** will prevent papers from blowing away. They also provide a writing surface if students are not working at tables or desks.
- » **Dry erase clipboards** can reduce the need for paper by providing an erasable writing surface.
- » **DIY Clipboards** are an inexpensive option. Cut cardboard into rectangles (approximately 9"x12" to hold standard size paper) and use binder clips, clothes pins, or rubber bands to secure papers. Encourage students to personalize or decorate them.
- » **Journals** can be used for student observations, sketches, data collection, or writing prompts, among many uses.

Supplies for Teachers

- » **Portable White Boards and Easels** can be used for writing or display and help direct students' attention. Smaller, less expensive options can be found [here](#) and [here](#).
- » **Bells** or other noisemakers can be used to get a class's attention or to signal transitions.
- » **Paper weights** will prevent loose materials from blowing away. Repurpose common supplies like tape dispensers or staplers to weigh down papers.
- » **Mobile carts** can keep teaching supplies organized and aid in their transport to outdoor learning sites.
- » **Voice amplifiers** will help students hear the teacher's voice above other distractions.
- » **Cones, chalk, tape, and signage** will support physical activities.

Scheduling

Scheduling outdoor spaces can be complicated. Use your school's existing scheduling systems, if possible. Co-located schools should coordinate use of outdoor spaces during building council meetings and update shared calendars. Designating a point person to coordinate space usage can also prevent scheduling conflicts. Virtual scheduling options may also be helpful. These are a few used by school gardeners to coordinate use of the garden space:

- » Google Calendar: Check out [Edible Schoolyard's guide to Google Calendars](#)
- » [Signup.com](#)

If you are scheduling a shared outdoor space with a co-located school, set up an internal schedule with teachers to ensure each class has time outside, and add to the space calendar that is shared with other schools. It is a good idea to include the school, contact info of the school outdoor coordinator, and teacher utilizing the space for each entry.



PHOTO: JEANNE SALCHLI



Safety Considerations for Teaching in the Outdoor Classroom

Safety procedures should be incorporated into any outdoor learning plan. To ensure everyone's safety, set clear expectations and rules for outdoor procedures and behavior.

- » Know and follow your school's **plans for emergency procedures**, including evacuations, lockdowns, and shelter-ins.
- » Follow your school's existing **safety and hand-washing procedures** for entering and exiting the school building.
- » Ensure that students and staff can maintain a **minimum of 6-12 feet physical distance** while outdoors.
- » Identify **potential risks (tripping hazards, sharp surfaces, etc.)** in sites and work with administrators or custodial staff to address them.
- » Work with parents/guardians or the school nurse to identify **students with allergies or health issues**.
- » Incorporate a **first-aid kit** into teacher's outdoor learning supplies; include **emergency contact numbers** in the kit.
- » Consider expanding the school's **collection of walkie-talkies** for use by teachers when they are outdoors. **Cell phones** can also be used by staff to communicate with administrators, safety officers, or nurses.
- » Prepare for the weather. Remind students to bring **water bottles on hot days**. A pro tip from an outdoor educator: **check the temperature of asphalt and metal** by touch or by using an outdoor thermometer to ensure it's not too hot on sunny days — a fun job for students as part of a daily routine!
- » Communicate with parents/guardians to ensure that students **dress appropriately on cold days** and are prepared with sunscreen, hats, or other protective accessories.
- » Plan for **bathroom breaks**.
- » If classes are using a large open space, create and communicate **boundaries for movement-based activities**.



PHOTO: JEANNE SALCHLI

Adapted from Baltimore City Public Schools' "Outdoor Learning at City Schools" document



PHOTO: NWF

Outdoor Classroom Management

Instructional time outdoors is different from contained classroom conditions. Keep the following suggestions in mind to ensure worthwhile lessons and experiences with students outdoors.

- » Set **clear expectations** for student behavior before going outdoors. Students need to understand that “outside” is a classroom too.
- » Decide on a way of getting students’ attention outdoors. **Have a clear signal**—or use a noisemaker like a bell— for getting everyone’s attention and gathering together. Practice it!
- » Plan. An outdoor classroom can be a place for quiet contemplation, active play, intense observation, independent work, group projects, hard work, and relaxation. Be sure to communicate this to students indoors: **discuss where the class will be working, how long they will be outside, what they will be expected to do, etc.**
- » **Use backpacks or bags to manage student supplies.** To minimize sharing of materials, students can carry their own set of supplies in their bags.
- » Allow students the opportunity to explore their surroundings. To be safe, comfortable and excited about learning in the outdoors, **students need time to explore the areas in which they will be learning.** Structured activities like scavenger hunts encourage safe exploration and can be integrated into lesson plans.
- » If your school’s policies permit visitors, **recruit parents and/or volunteers** to help manage groups outdoors.
- » Partner with **community based organizations and non-formal educators** to lead or support your outdoor learning goals.

FIND MORE OUTDOOR TEACHING TIPS LINKED BELOW

- » [LifeLab’s Guide to Managing Students Outdoors](#)
- » [NWF Tips for Teaching Outdoors](#)
- » [Collective School Garden Network](#)

Set clear expectations for student behavior before going outdoors. Students need to understand that “outside” is a classroom too.



Special Education Programs

Special Education programs include: All schools and sites in District 75, students in self-contained classes, students in Integrated Co-Teaching integrated classrooms. While there are many considerations to make outdoor learning successful for students in special education programs, there are also many inspiring stories of schools who use outdoor learning regularly with their students.

The following schools regularly work with students outdoors and in their school gardens:

For example, P721K in Gravesend, Brooklyn regularly uses their garden with students and operates a weekly farm stand for families and staff.

“Students have developed a sense of responsibility and independence while working in our school garden. Students are able to socially engage with staff and students when hosting our weekly farmstand. Our students take ownership of what is grown in the garden and how we market it and sell our produce.”

-Alanna O'Donnell, Teacher



PHOTO: TINA RERES

PRO TIPS FROM DISTRICT 75 TEACHERS PRACTICING OUTDOOR LEARNING

- » **Clearly define the content** that students will be learning outside.
- » **Meet with parents** before initiating outdoor learning.
- » Develop relationships with the **local NYPD and FDNY** in case of emergencies.
- » Develop **home gardening kits for students who are learning remotely full time** — Donors Choose is great for this.
- » Create routines to support structured, positive student experiences: **Use a timer** to signal the end of exploration and **attach laminated name tags** with student photos to mark seating.

Considerations for Special Education Programs:

- » Addressing accessibility for students with limited mobility (wheelchairs/ walkers): Does the outdoor space allow for easy access? The ADA's compliance guide can be found [here](#).
- » For students with hearing or vision considerations: is there signage, are there assisted listening devices to address outdoor noise, noise canceling headphones, portable microphones/amplification, noise barriers to limit sounds from busy streets or otherwise?
- » Are there students who have medical conditions and/or take medications that create additional concerns for participating in outdoor learning? If so, what modifications are needed?
- » Is additional training for staff (i.e. para-professionals) needed in order to teach outdoors?
- » Is there an adequate shade area or cool down space for students to take a break or have needed alone time?

Resources:

For District 75 schools: **Plant Learn Grow** is a District 75 program of the DOE that assists schools with planning, building, and integrating garden education into special education programming. Please reach out to Plant Learn Grow to discuss the needs of your students and better plan for a successful outdoor classroom experience.

Any teacher who has students with Individualized Education Plans are welcome to reach out to District 75 programs, including Plant Learn Grow, for professional learning or support.

Please note: Effective September 2020, the Plant Learn Grow team has been reassigned to teaching roles within the DOE. They hope to return to garden coaching during the spring of 2021.

Cara Coffina, Coordinator of Applied Learning: ccoffin@schools.nyc.gov

PHOTO: NWF

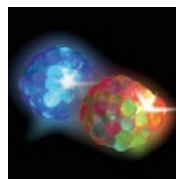


Teaching Tools for Students in Special Education Programs

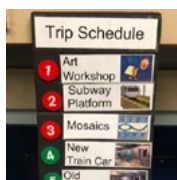
To better prepare students for time outside in a new environment, consider the following teaching tools, many of which are helpful for general education students as well:



Social Narratives: Social narratives (SN) are short stories used to describe social situations for learners by providing relevant cues, explaining the feelings and thoughts of others, and describing appropriate behavior expectations. An example of a social narrative can be found [here](#).



Fidgets: Hand fidgets can help with anxiety, improve attention and ability to focus, or even help students calm down when emotions are overwhelming. The glowing bead balls are one example of fidgets, but there are many. Schools have also used freshly picked herbs for students to smell to help calm and refocus.



Visual Schedules: Visual schedules are a great way to help students stay organized outside. The example (left), used by museum educators at the Transit Museum, used velcro backing so schedules could be easily changed if need be.



Timers: By providing visual cues, timers give students an idea of what is expected in a certain amount of time. They can be particularly helpful and calming for tasks students would prefer not to do. They are also helpful with helping students transition between tasks.



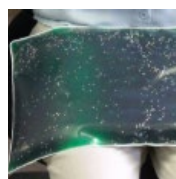
Visual Boards: Helpful for non-verbal students or English Language Learners, visual boards are a helpful way to engage students with new vocabulary in a new space. The example (left) was used by educators at the Transit Museum.



Mobility mats: These mats can be used to smooth uneven surfaces that can be difficult for students using wheelchairs or walkers to navigate.



Wiggle Seats or Wobble Cushions: These seats are more comfortable for students who need to move while sitting.



Weighted Lap Pads: By applying gentle pressure, weighted lap pads are a calming reminder to stay still.



Noise Canceling Headphones: For students with noise sensitivities, consider headphones or assisted listening devices.



For more information on working with students in special education programs outdoors or horticultural therapy, please consider the following resources:

Betterhealth.vic.gov.au

HORTICULTURAL THERAPY REFERENCE BOOKS:

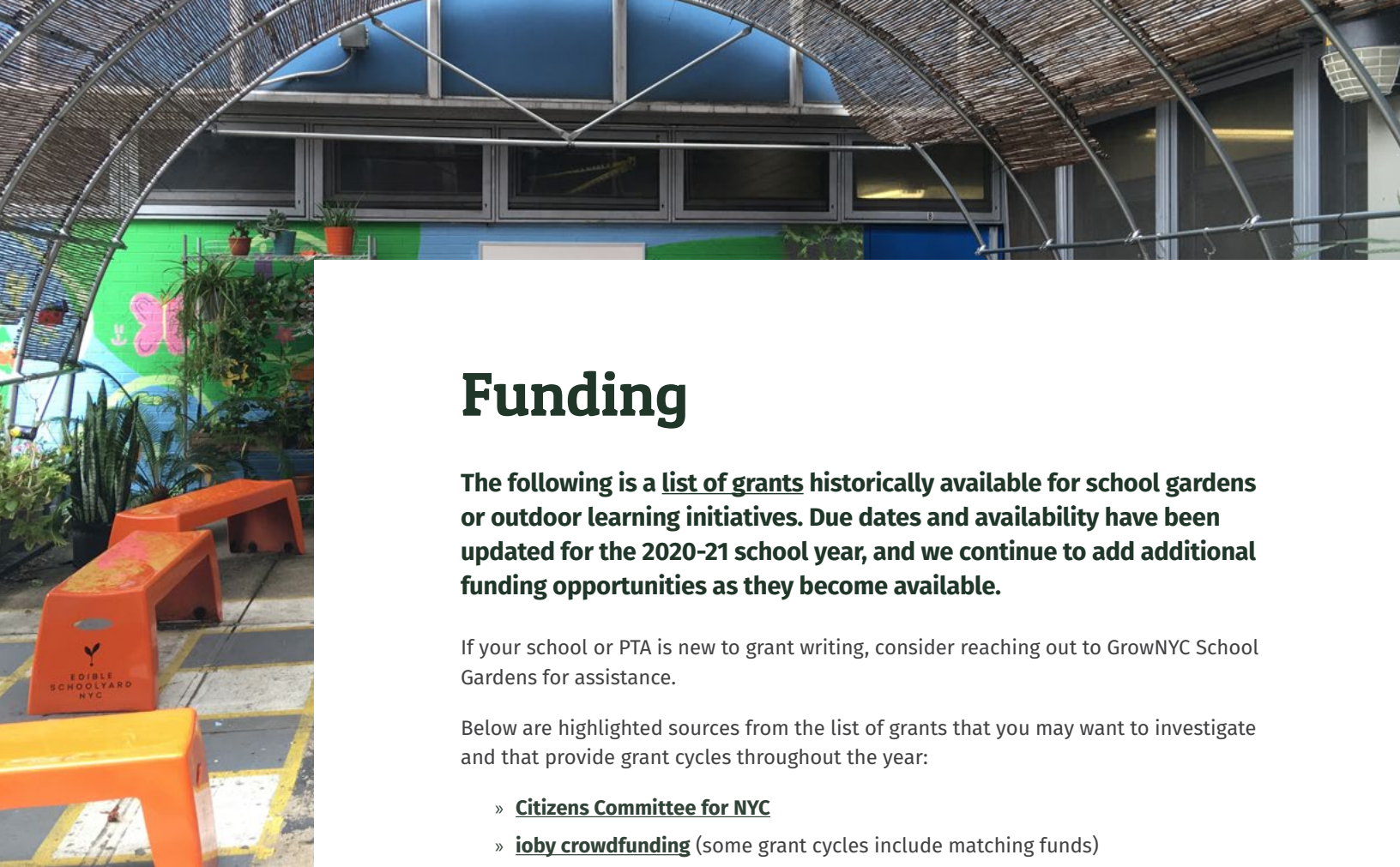
- » **Gardening for Children with Autism Spectrum Disorders and Special Educational Needs** by Natasha Etherington
- » **Accessible Gardening for People with Physical Disabilities - A Guide to Methods, Tools, and Plants** by Janeen R. Adil
- » **Horticultural Therapy Methods - Making Connections in Health Care, Human Service and Community Programs** by Rebecca L. Haller & Christine L. Kramer
- » **Horticulture as Therapy - Principles and Practice** by Sharon P. Simson & Martha C. Straus

HORTICULTURAL THERAPY ORGANIZATIONS FOR ADDITIONAL SUPPORT:

- » **MAHTN** - Mid-Atlantic Horticulture Therapy Network
- » **AHTA** - American Horticultural Therapy Association

PHOTO: TERI BRENNAN

While there are many considerations to make outdoor learning successful for students in special education programs, there are also many inspiring stories of schools who use outdoor learning regularly with their students.



Funding

The following is a **list of grants** historically available for school gardens or outdoor learning initiatives. Due dates and availability have been updated for the 2020-21 school year, and we continue to add additional funding opportunities as they become available.

If your school or PTA is new to grant writing, consider reaching out to GrowNYC School Gardens for assistance.

Below are highlighted sources from the list of grants that you may want to investigate and that provide grant cycles throughout the year:

- » **Citizens Committee for NYC**
- » **ioby crowdfunding** (some grant cycles include matching funds)
- » **KidsGardening** has a long list of grants, mostly directed at K-12 schools but some are for community gardens and higher education programs.

You may want to look into finding sponsorships, such as nearby businesses that would want to partner with your school to build a garden/outdoor classroom.

Partner Resources

The options for outdoor education are limitless. NYC is home to many nonprofit partners that have curriculum and material resources available to help your garden or outdoor classroom thrive, free of cost to schools. **Green Schoolyards America Covid-19 Outdoor Learning Initiative** is a comprehensive resource that will be continually updated.

This document lists organizations and resources to support school gardening and outdoor education at your school.

Last year, the GrowNYC School Gardens team read through the Scope and Sequence for **K-8 Science** and **K-8 Social Studies**, highlighting places where environmental education or gardening could be incorporated into required curriculum. Links to lesson plans from partner organizations are included. This is a great tool for developing a school-wide gardening program, and it can also be used to re-imagine instructional time outside.

You may want to look into finding sponsorships, such as nearby businesses that would want to partner with your school to build the garden/outdoor classroom.

Case Studies and Sample Plans from Schools

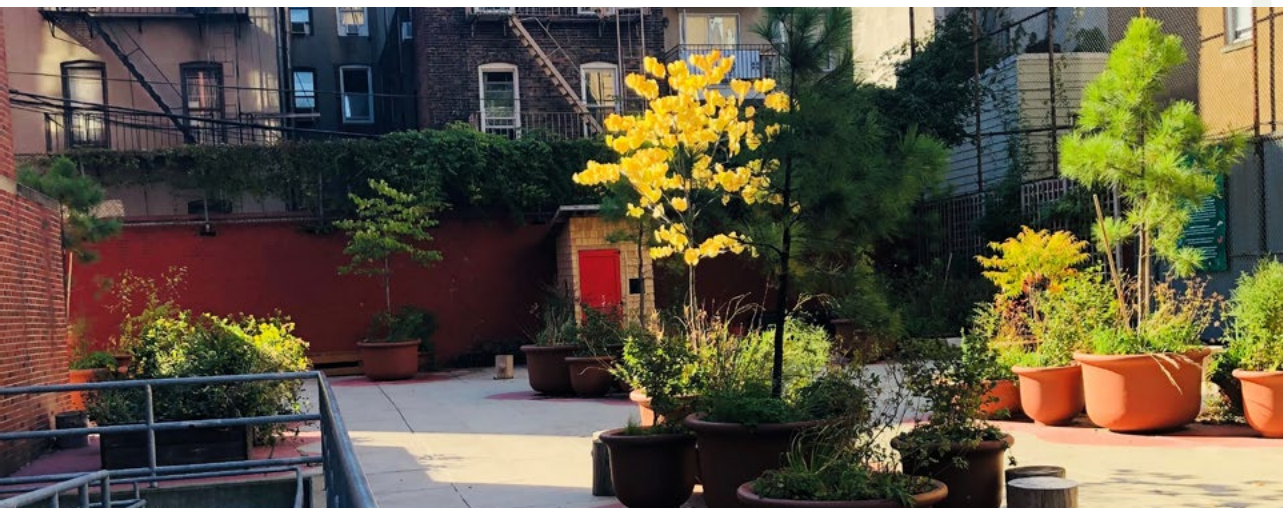


PHOTO: AMY CHALKLEY

PS 110K The Monitor School

Elementary school in Greenpoint, Brooklyn

School size averages 600 students. The initial approved plan accommodates approximately 300 students in 2 cohorts. Students will be attending 2-3 days a week in-person. There will be 27 classes ranging in size from 7-14 students.

SPACES DESIGNATED FOR OUTDOOR LEARNING

School grounds: Monitor Yard Garden and Driggs Yard Playground

Park space tbd: Adjacent to the school is McGolrick Park.

PRELIMINARY TIME COMMITMENT OUTDOORS

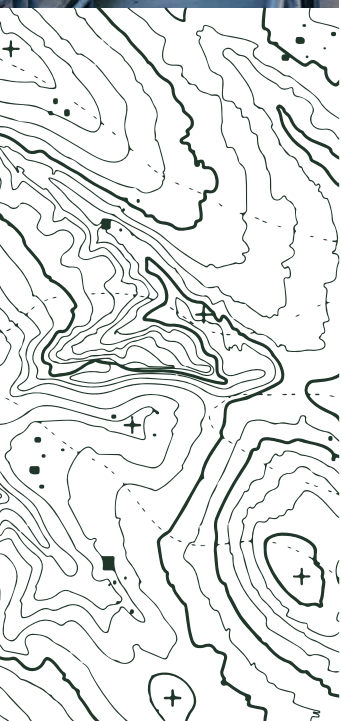
Every class will go outside for one full class period (47 minutes) a day.

TEACHING FOCUS

Outdoor learning focuses will be left to individual teachers, with a recommendation by Outdoor Learning Teacher Leads (one for upper grades and one for lower) to prioritize reading, movement, and social wellbeing education.

PARTNERS

NYU's Wallerstein Collaborative For Urban Environmental Education. The school has been matched with a graduate intern who will create a blueprint for scheduling and space logistics for Fall 2020.



Case Studies and Sample Plans from Schools



PHOTO: TERESA BELLO

PS 185 The Locke School of Arts and Engineering

Elementary school in Harlem, Manhattan

The school size averages 350 students. The initial outdoor learning spaces and plans can accommodate 10 small classes (up to 92 students) in separate areas on the school grounds.

SPACES DESIGNATED FOR OUTDOOR LEARNING

The school has two garden spaces that feature sensory and imaginative play areas, reading spots, composting, and an urban farm. It also has one large play yard that can be divided into class spaces and two small yards with tree canopy. Through the NYC DOE permit application, the school also reserved an area of nearby Central Park for social activities or nature exploration during two mornings per week.

PRELIMINARY TIME COMMITMENT OUTDOORS

Students will receive daily Physical Education (P.E.) outdoors. Each class has one outdoor class period scheduled per day.

TEACHING FOCUS

Physical education, read-alouds, independent reading and writing, math, science, nature walks, gardening, and sensory play.

PARTNERS

School PTA, Green Schoolyards America

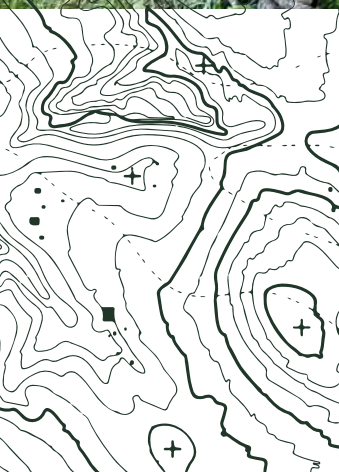




PHOTO: TERESA BELLO



**GR
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Enhance Student Learning

While outdoor classrooms are new to many schools, we hope this Toolkit illustrates that many schools in all five boroughs have been successfully implementing various forms of outdoor learning for many years, encouraging students to engage with the natural world to enhance student learning.

As outdoor learning and policy continues to evolve, we will update the Toolkit accordingly. If you'd like to be notified of upcoming workshops, panel discussions, and resources to help your school implement outdoor learning, please consider signing up [here](#) for occasional updates.

**FOR QUESTIONS, CONCERNS, AND SUGGESTIONS,
PLEASE REACH OUT TO:**

KRISTIN FIELDS

Director, GrowNYC School Gardens
kfields@grownyc.org

SARAH WARD

National Wildlife Federation
Schoolyard and Community Habitats Program Manager
wards@nwf.org

Visit: www.grownyc.org

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