North American Association for Environmental Education and National Wildlife Federation

Guide to Advocating for Outdoor Classrooms in Coronavirus-Era School Reopening

Kevin J. Coyle and Sarah Bodor

Cover Photo: West Point Central School, via Mississippi State University

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Kevin J. Coyle and Sarah Bodor

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Introduction:

Imagine a school reopening that is largely outdoors. It could be in a place where students and teachers, dressed for the weather, are safely distributed and distanced in open areas around a school's campus or even along a closed street in front of or behind the school. Imagine the creative use of sheltering trees and tents to provide shade or protection from the wind and rain, and the smart arrangement of seating. Instead of students being jammed into classrooms with poor air circulation, children are getting fresh (and safer) air for much of the day. Think, too, of a school that places classes of students and their educators near available campus greenery -- gardens, landscaping, street trees, on-campus trees, and more. Such access to nature could help their mood, reduce stress, improve their ability to concentrate, and increase their overall sense of well-being. It would also offer some powerful educational opportunities not only in science, but across the curriculum.

This "outdoor school" scenario would differ in various parts of the country based on overall climate conditions and available space. But, especially for older schools with cramped conditions and poor air circulation and filtration, it could offer a significant pressure-release valve in space and added schedule flexibility. It could help to address deep inequities in access to nature laid bare by the pandemic. Outdoor learning can also provide opportunities for successful learning for students who struggle in a traditional classroom setting. Importantly, it could also help provide a safer and even lower-cost return to school if and when public health officials give reopening the green light.

Photo: New York City 1915, Bureau of Charities, Library of Congress

Dr. Anthony Fauci, who heads the National Institute of Allergy and Infectious Diseases, suggested in his Facebook Live chat about school reopening with Rhode Island Gov. Gina Raimondo that it is important to "get as much outdoors as you can. If you look at the super-spreader events that have occurred, they're almost always inside," he said, citing major outbreaks at nursing homes, meatpacking warehouses, prisons and weddings and other social events.

Does it sound impossible to have much more outdoor learning? Maybe not. Thousands of U.S. schools currently conduct some form of outdoor education, and many already have one or more dedicated

gardens or outdoor classrooms. During the period of the pandemic, there is considerable wisdom in looking harder at this opportunity and in greatly expanding our official thinking about the potential for learning outdoors.

This is not a new idea. It was done during the tuberculosis outbreak of the early 1900s. One recent article reminded us that many schools moved their students outdoors even in the dead of winter. The children were assembled in warm clothes and some schools even had the children slip into warm sacks at their desks while they attended class outdoors. We are proposing something less drastic – a healthy portion of seasonally appropriate outdoor classroom use in any school reopening plan if and when returning in-person is found to be safe by public health officials.

> *For schools it is important to "get as much outdoors as you can. If you look at the super-spreader events that have occurred, they're almost always inside,"*
>
> **Dr. Anthony Fauci, National Institute of Allergies and Infectious Diseases**

Why a Policy Guide for Outdoor Classrooms During Coronavirus-era Reopening?

Photo: American Psychological Association

A large and truly unprecedented amount of public funding is becoming available for school reopening in late 2020 and throughout 2021. Policy makers agree that, in order to reopen more safely, schools will need to make major investments in a variety of protective measures. This will include the distancing of desks and chairs, plexiglass barriers, filtered air systems and much more. So why not outdoor classrooms? The Associated Press reported in July of 2020 that "The Council of Chief State School Officers says safely reopening public schools could cost between $158 billion and $245 billion, while the American Federation of Teachers put the figure at $116.5 billion. The Association of School Business Officials International estimates that reopening will require additional spending equivalent to about 3.5% of districts' normal budgets." A significant portion of this money will come from state and local sources, but the U.S. Congress has also been working on a major funding package to support safer schools.

Once this overall funding is allocated, state and mostly local officials will determine how to spend the funds, and this offers a major opportunity for furthering the use of outdoor classrooms and outdoor education as part of the mix. But it will only happen on large scale with an organized nationwide effort to call upon those officials to think outside the school.

In late 2020, throughout 2021 and beyond, pre-K-12 schools will be working to provide safe in-person education for their students. The purpose of this Guide is to help energize a large-scale nationwide force of advocates to encourage school officials and educators to apply some portion of the federal reopening funds and other public funding resources being made available to the effective use of outdoor classrooms. This would help control and prevent the spread of the Covid-19 virus in the school setting and therefore keep students, faculty, parents, and the surrounding community safer. Please note that the decision on whether or not to reopen in-person is an important one that must be guided by public health science to ensure public safety, student and educator safety, and the safety of the larger school communities. Schools in some areas will undoubtedly open for students and educators in 2020 while others will wait until 2021 or beyond to reopen. To be clear, the authors of this Guide are not recommending the untimely reopening of schools. But even after the Covid-19 pandemic subsides as a major health threat in the United States, due to vaccinations or other measures, schools will still be practicing pandemic-affected procedures into the future. And that will include social distancing and fresher air.

The Advantages of Outdoor Spaces

Photo: Education Week and Green Schoolyards America

Increased use of outdoor classrooms and other outdoor learning spaces at schools can offer significant benefits to in-person learning in the pandemic-era. The epidemiology of the Covid-19 virus strongly indicates that people are more at risk of cross-infection in indoor environments. Indeed, many schools do not have sufficient indoor spaces to safely accommodate their students when social distancing rules are applied. Indicators are that an average class size of 20 to 25 students would need to be cut back to 15 to 18 students per classroom to allow for a six-foot separation of desks. That means that even with such measures as plexiglass barriers between desks, many schools could expect to need overflow space for 25% to 35% of their students. Some of this overflow could be handled through use of gymnasium and cafeteria space but probably not all of it. Moreover, the indoor air circulation and air quality at schools is often not optimal to prevent the spread of disease. In older urban schools in lower income areas, for example, the quality of indoor air is already poor and the opportunity for the spread of disease is even greater. A recent report on school facilities released by the Government Accountability Office found that more than 40% of school districts need to update or replace heating, ventilation and air conditioning systems in at least half of their schools – an estimated 36,000 schools nationwide. Many of these schools are in low income areas in urban, rural and tribal settings.

And, while there are a number of schools that have very limited outdoor space, the large majority are situated on land comprising five to 20 acres. A typical school campus is a mix of parking areas, sports courts and fields, play areas, educational gardens, landscaped areas, and natural lands ranging from

simple hedgerows to woods, ponds and wetlands. The reasons to consider more use of outdoors include a lot of common sense:

- There is more room to spread out, making desk and student separation easier.
- Outdoor classrooms fit well with cohort or "pod" group separation/isolation approaches.
- Educator safety can be better supported particularly for teachers and staff who may be over 50.
- There is more ability to match a limited number of pre-K-12 staff and faculty members with larger classes to offset staff shortages.
- Public health officials are learning that there is less disease transmission in open air settings: a growing body of evidence shows that outdoor air is more likely to rapidly disperse Covid-19-laden droplets when compared to more stationary indoor air.
- Direct sunlight can suppress the disease on surfaces more rapidly.
- There are added benefits, such as more ability to provide room for students to eat but stay safely apart during meal times and less opportunity for them to experience crowded corridors.

Photo: Hannah Troumbley, via Bennington Banner

There are also some potential downsides to the use of outdoor classrooms. One is that in most parts of the U.S., it would be difficult for them to be employed year-round. In hotter months in some regions, such as the Southwest, and in colder seasons in other areas, such as the upper Midwest, there may be times when outdoor education will be too challenging. Some schools believe there are ways to address those challenges and are exploring options for using the outdoors for learning year-round. In Maine, for example, the state department of education has secured a grant that will allow for piloting of outdoor learning innovations that may become models for statewide expansion. Even a seasonal program to incorporate the outdoors would provide significant flexibility to most schools that are balancing in-person school strategies with virtual strategies.

Another concern is that some students are susceptible to allergies and even asthma. While air quality outdoors can be significantly better than indoor air at schools, there may be more exposure to pollen and there are still schools that are situated in highly polluted urban areas. Educators and school nurses would need to monitor students with a higher risk of allergic responses.

Another challenge is that, according to an article published in April 2020 by the National Library of Medicine, teachers who participated in focus group discussions did not see the increased use of outdoor classrooms as all that feasible. The research did not fully explore the reasons for this perception but it is worth noting that cost and logistics may have been a factor, as the study was done before such a large amount of public funding was being discussed by Congress and the states and there was less information available on how outdoor environments are safer than indoor environments when it comes to the spread of Covid-19. Community-based outdoor and environmental education programs can help schools identify ways to address these perceptions by providing professional development to teachers in effective use of the outdoors, curricula that feature outdoor investigations and other activities, and staffing support to engage students in outdoor learning.

A remarkable online resource with information on the role of outdoor spaces and green schoolyards in the pandemic era comes from a website by the National Covid-19 Outdoor Learning Initiative, which was launched in June of 2020. This resource and the work of its creators are described in a later section of this Guide. This information and others sources, such as the reopening guidance by the North America Association for Environmental Education, will also be discussed in more detail later in this Guide.

The Outdoor Classroom Policy Gap

Photo: L.M. Otero, AP

National and state pre-K-12 policy makers have tended to either ignore or underplay the important role that outdoor spaces can play in in-person school reopening plans. As noted, many school districts throughout the U.S. are reopening their doors in the fall of 2020 while others are continuing to offer instruction virtually and will consider opening in 2021 or beyond. To make the children, faculty and staff safer, schools plan to use a number of specific measures including: 100% facemask use, routine hand and surface hygiene, more handwashing stations, temperature monitoring, Covid-19 testing, improved air filtration, careful social distancing, plexiglass shields, special protocols for meals, limitations on bus transportation and more.

These practices and procedures are largely based upon the detailed guidance that has been issued on school reopening by the Centers for Disease Control and Prevention (CDC) and by such nongovernmental organizations as the American Academy of Pediatrics (AAP). State education and public health agencies have followed suit and developed their own versions of official guidance for local districts which, in turn, are adopting many of the above protocols to make people safer at schools.

The AAP guidelines are very detailed on a variety of public health measures that can help children and faculty to have a safer environment at schools, differentiated by age level. But the guidance mostly limits advice on the use of outdoor classrooms to statements such as "utilize outdoor spaces when possible."

Photo: Politico

The CDC guidelines discuss the importance of social distancing and barriers between desks, etc., but are largely silent on the use of outdoor classes, although they do caution on playground supervision and playground cleaning between uses.

In nearly all of these documents, there is something of a guidance gap. While It is not unusual for the national and state guidance documents to mention the use of outdoor spaces as an option to help achieve social distancing, it is rare to see more specific guidance on how to effectively

undertake this practice or obtain its full benefits. An example of such a gap comes from the CDC, which addresses the use of outdoor spaces as "expansion space" but offers no particular recommendations for how to do that effectively.

Some states, such as Oregon, discuss the use of open windows and outdoor spaces in their statewide reopening plans, but most state agencies drew heavily from the CDC guidelines, which limit the discussion of social distancing to the placement of desks, barriers between desks, and other indoor-focused efforts.

New York's guidance discusses more specific plans for using expanded space that includes outdoor tents.

Maryland's guidance adds a nature element and says "finding ways to use outdoor learning spaces allows school systems to continue an instructional program in environmental literacy. According to research, benefits to student interactions within nature spaces extends beyond improved cognition to include mental health and general well-being and restoration, with the potential to decrease anxiety and stress. As with any educational experience, safety, health, and accessibility are the first priorities."

Photo: Erin O. Smith, Chattanooga Times Free Press

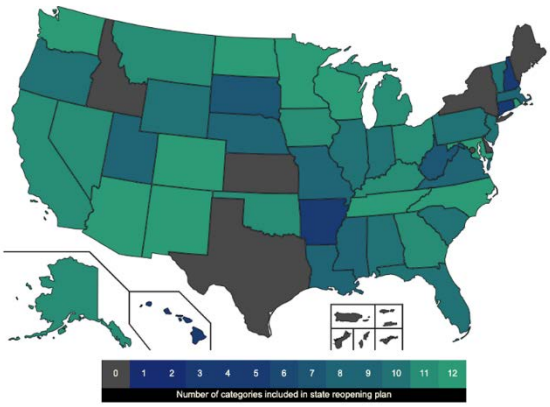
Massachusetts guidance is also helpful to the outdoor classroom cause and says that outdoor spaces should also be considered, weather allowing: "As feasible, consider the use of outdoor spaces for classes, breaks, meals, and other activities." Some jurisdictions have considered tents, platforms, and other not-permanent structures in spaces adjacent to buildings, such as courtyards, play areas and parking lots.

The Outdoor Classroom Advocacy Imperative

Without a concerted effort to push for pre-K-12 outdoor classroom development at the state and local level, available funds will go largely to indoor improvements and protocols. This is the time for outdoor-education advocates to step up and help access some of the tens of billions of dollars that will be allocated to schools in the face of the Covid-19 pandemic.

How to get access to the information these advocates will need is covered in this Guide. The truly unprecedented amount of federal, state and local funding that is and will be applied to school reopening is an opportunity for outdoor classrooms that should not be missed.

Educators, parents and others need to be advocating at the school district and individual school level. This advocacy does not involve a sophisticated knowledge of the policy development process, it involves simply asking state and local school officials for more attention to outdoor classrooms in reopening efforts and offering useful information.



Map: Johns Hopkins University

Who Should Advocate?

Anyone who cares about pre-K-12 students, faculty and staff being safer when they finally go back to in-person education should consider the power of being an outdoor classroom advocate.

Educators and parents who believe in the academic, health and child-development benefits of education outdoors should likewise become public advocates.

Environmental and natural science educators have knowledge and expertise that can be particularly helpful as they advocate for outdoor classroom use.

Who Should be Contacted?

State education departments, particularly the education secretaries, are an excellent place to start. They are responsible for issuing guidance to the nation's 14,000 public pre-K-12 school districts. While much of this guidance was published in the spring of 2020, they can supplement it at any time with added detail on the why and how of outdoor classroom development and use.

Local school superintendents are another prime target for filing written requests for more comprehensive consideration of outdoor classrooms. They are wrestling with reopening strategy and expenses and would benefit from being contacted by education advocates with ideas on how outdoor classroom creation could help the overall situation. If a district has a facilities department (most of the larger ones do) they should be copied on any requests or communications.

Local school board members often have control of budget approvals and could allocate resources to outdoor spaces and learning. They would benefit from hearing from outdoor classroom advocates.

School principals in many jurisdictions have considerable discretion on how to apply the reopening funds they receive. They would benefit from examples of how schools are managing to use the outdoors effectively in reopening and in education in general.

It would also be helpful to reach out to state and local sections of such teacher-support organizations as the American Federation of Teachers and the National Education Association to advise them on the benefits offered by the effective deployment of outdoor classrooms.

Tools for Outdoor Classroom Advocates

Photo: PublicSource, Institute for Nonprofit News

Effective advocacy can be as simple as having persuasive information on why outdoor classrooms are a good idea. There are, nonetheless, a few ways to advocate more successfully. The North American Association for Environmental Education has produced a policy advocacy guide that many environmental educators, and those who believe in increasing use of outdoor classrooms, will find useful. The guide offers basic ideas on pushing legislators and agency officials to increase their support for environmental education, and the basic approaches apply equally well to outdoor classrooms, particularly if the focus is on making them as green as possible. The Association for Supervision and Curriculum Development (ASCD) also has an advocacy guide that can be helpful.

The Children & Nature Network (C&NN) has also developed an advocacy tool kit for green schoolyards which is designed to help champions confidently make the case for green schoolyards. There are audience specific tools that are geared to make the case to school board members, superintendents, principals, teachers, parents and community members. A particular strength of C&NN's took kit are downloadable slide presentations and handouts that can be used by grassroots advocates for doing needs assessments and making the strongest case for green schoolyards and outdoor learning. The Youth Outdoor Policy Playbook, a collaboration of C&NN, NAAEE, National Caucus of Environmental Legislators, Outdoors Alliance for Kids, and the Meridian Institute, provides a bill library, case studies of successful policies passed in states across the country, policy briefs—including a policy brief on School Re-Opening During COVID-19—among other helpful resources.

Emails asking for consideration of outdoor classrooms are a good place to start. The internet can make finding the right person to contact—likely a local principal or school superintendent--relatively easy. Advocates should send these decisionmakers a letter or email asking for consideration of outdoor spaces in school reopening and directing them to some of the resources available in other sections of this Guide. This is also a time when a delegation of advocates could seek a Zoom or other online meeting with the contact to discuss outdoor classrooms.

Reopening guidance efforts, such as those by spearheaded by Green Schoolyards America and the North American Association for Environmental Education, will be useful in those communications.

Photo: ABC News

Case examples will also be useful. In New York City, for example, the District 3 Community Education Council adopted a resolution calling upon state and local education officials to invest in outdoor classrooms. More case examples on the use of outdoors will become available as schools reopen over the next year or two.

Research summaries on the benefits of outdoor classrooms help make the case. In other sections of this Guide we emphasize that space for social distancing and open air to decrease disease transmission are not the only goals. The use of natural vegetation, green spaces, and environmental education can offer significant benefits to the students with respect to the learning process.

What Should Advocates Ask For?

At the state level ask decision makers to include more detail on the outdoor space use and outdoor learning opportunities in their state guidance to school districts, and to allocate federal and state funds for well-planned outdoor classrooms.

For school districts and schools ask that they equip and implement robust outdoor classroom programs at schools and incorporate learning outdoors in their plans.

Why the Fall of 2020 and the Year 2021 are so Critical

Unprecedented Government Spending

There are actually two main reasons for advocates to speak up now. The first is discussed above and is based on major federal and state funding that will be applied to making schools safer for reopening in the Covid-19 pandemic era.

Photo: Green Schoolyards America

A second reason has to do with an opportunity more likely to emerge in 2021 or beyond: a piece of legislation known as the Rebuild America's Schools Act. That legislation is not likely to be passed in the next few months, but when it is passed, it will provide $100 billion or more to rebuild and refurbish public schools across the U.S. as part of major effort to bring particularly lower-income schools up to a higher facilities standard. This will include green improvements consistent with the programs of the U.S. Green Building Council and the Collaborative for High Performance schools. A significant

opportunity is to make the buildings greener at these schools and to create schoolyards that are green and well-suited to outdoor education and nature study.

An Opportunity to Address Environmental Justice at Schools

Photo: Jose Rosorio/Chicago Tribune

As noted in several places in this Guide, schools in urban school districts, tribal schools, and some rural districts have school buildings that can be over-crowded with deteriorated structures, poor air circulation systems, poor lighting, windows that do not open and more. Members of the environmental justice advocacy community refer to these as "legacy issues" because they are so deeply rooted the past. In situations where schools and school districts agree to open in-person, a greater reliance on outdoor classrooms could help the students, faculty and staff of these schools to stay more protected from the coronavirus. This would also help to protect parents and grandparents of these children. The evidence is clear that families in lower income areas are the most impacted by the pandemic, and outdoor classrooms could play a role in mitigating some of those effects. The Mayo Clinic, for example, has done an analysis of the impacts of the virus on racial and ethnic groups, including African American and Hispanic people, and finds that they are being disproportionately affected by the pandemic.

Planning and Design Considerations

Basic Expansion of Space Considerations

Photo: Maya Tubic, Patch Media

Much of the reopening guidance at the state level and local level recognizes that, with social distancing goals of six feet of separation, existing classroom space is often insufficient. This is especially true in urban school districts, where average class size may be larger than the national average. Plus, researchers from MIT and the University of Oxford have found serious limitations to the six-foot or two-meter distancing recommendation. They say that more distance is advisable in many indoor environments.

Schools considering expansion space often begin by considering use of indoor spaces such as cafeterias and gyms. When they do consider outdoor spaces, a number of approaches are immediately evident, such as the use of parking areas, lawns and other vacant outdoor spaces. Some schools make use of tents, such as are used for outdoor events like weddings, for shade and shelter. In situations where there is little outdoor space, street closings are being used to create more room for in-person learning.

In one article, the efforts of New York City to make use of street space is discussed. New York has plans to reopen schools in person but will not be sending all of the students back into indoor classrooms.

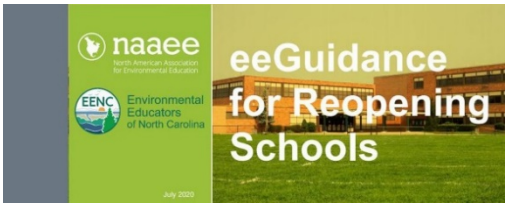
Green Outdoor Space Opportunities

Nestled within the opportunity for use of outdoor spaces to help with fresh air, social distancing, and reduced disease transmission is the opportunity to make optimal use of green spaces around schools. This goes well beyond the simple use of vacant outdoor space (such as a lawn or parking area) and it can have some very powerful benefits for the students and faculty. Research shows that this includes their overall health, their cognitive development, their management of stress and their academic performance.

Photo: North Country School Lake Placid

The use of pre-K-12 schoolyards for nature-based education and outdoor classroom settings is nothing new. This is particularly true of school gardens where students learn about growing food, creating habitat and supporting nature and nutrition in a number of ways while learning science and becoming more ecologically literate. Piecing together information from varying sources indicates there are as many as 30,000 to 40,000 school gardens in the U.S.

Two organizations, Green Schoolyards America and its coalition members that are part of the National Covid-19 Outdoor Learning Initiative and the North American Association for Environmental Education have created specific guidance for how to approach and create outdoor classrooms during the pandemic.



The NAAEE reopening guidance was developed in consultation with leaders from its nationwide affiliate network of organizations who held more than 65 listening sessions with hundreds of environmental and outdoor learning providers from around the country during the spring of 2020. The guidance offers dozens of helpful recommendations for school districts and individual schools. These include conducting an inventory of the school grounds to be sure to maximize opportunities for a more nature-based outdoor class setting, engaging community environmental and outdoor education programs as alternative resources for learning, tapping into the expertise of environmental educators, including the staffs of local nature centers and park agencies, to support teaching and learning, creating healthier learning environments, and supporting at-home learning.

The National Covid-19 Outdoor Learning Initiative coordinated by Green Schoolyards America has pulled together an exceptional comprehensive website with helpful case studies, background research and suggestions for the integration of green schoolyards into educational programming at the school. Importantly, Green Schoolyards America and the National Covid-19 Outdoor Learning Initiative have used their extensive design expertise to set out layout and design concepts and examples that the facilities staff at school districts and schools will find helpful. These schematics, for example, show ways to maximize the use of trees on the campus, arrange seating and more.

green schoolyards america

The New England-based Inside-Outside Advisory Group which is a consortium of organizations aiming to increase outdoor learning in New England and beyond, has likewise developed guidance suggesting that schools use larger block of time (half the school day) for outdoor learning and make use of nearby parks and nature areas in addition to school grounds.

There are also several national programs that directly support the use of school grounds for outdoor and nature-based education. Among these are the National Wildlife Federation's Eco-Schools USA programs and its Schoolyard Habitat® program which, between them, are active in 14,000 schools. These programs offer schools extensive information on school greening including on the building of gardens for outdoor classrooms.

Project Learning Tree, a program of the Sustainable Forestry Initiative, likewise supports several thousand PLT Green Schools. This program focuses extensively on using nature and outdoor spaces at schools to for student investigations and other forms of school greening.

The Captain Planet Foundation also has a school garden program called Project Learning Garden. In addition, there are a number of food-oriented school garden programs, such as the Edible Schoolyards Project.

The Children and Nature Network has set up a Green Schoolyards Resources Hub to help schools plan, fund and implement green schoolyards. There are also more locally based organizations that support green schoolyards. The Boston Schoolyard Project, for instance, has developed a remarkable Outdoor Classroom Users' Guide.

Photo: Natural learning Initiative

Opportunities in Both Early Childhood and Before- and After-School Programs

The Natural Learning Initiative (NLI), which has spent many years researching and showing how well-designed natural outdoor learning and play environments can support healthy development in younger children, has developed guidelines and other support for outdoor classrooms.

Similarly, the National Wildlife Federation, which works closely with NLI, has developed its Early Childhood Health Outdoors program (ECHO) which helps preschools, elementary schools and childcare facilities to develop outdoor areas for children that encourage them to connect with nature, improve their fitness, and more. These same areas serve as outdoor classrooms.

The North American Association for Environmental Education helps coordinate another early childhood learning network, the Natural Start Alliance. The Alliance is a network of organizations and individuals

that has a particular focus on reaching pre-school age children and providing connections to nature and simple environmental learning. The Alliance itself focuses on professional development for educators and child care workers, and seeks to strengthen a nationwide community of practice for environmental and nature education and experiences in the early childhood space.

There are more than 10 million children and students of all ages who participate in after-school programs across the U.S. A large percentage of this after school programming is provided at schools, and the After School Alliance, which helps to support the national after-school movement, has completed a survey of how Cov-19 seems to be affecting before- and after-school programming. Certainly, the use of outdoor classrooms in the after-school setting can help to address concerns that parents and practitioners may have for safety, and many of the same basic rules being put in place for return to regular school hours would apply to the after-school setting. That is, if and when local public health officials determine that a return to some level of in-person education is prudent, outdoor classrooms would also be a useful tool in the after-school setting for making such a return safer. After- school programs are of particular importance to parents and providers in lower-income areas where adults are required to be at their jobs in person. In these areas making after school safer for the children, by making more effective use of outdoor spaces, can help them and their families be safer as well.

In addition to schools and school districts providing afterschool programs, there are other groups of agencies and NGOs that are major providers and are likewise positioned to make more use of outdoor environments. The local and regional park and recreation agencies that are members of the National Recreation and Park Association are major afterschool providers in the U.S. These agencies are highly capable of providing after-school programming in an outdoor, nature-based setting, and many of them do, as this survey demonstrates. NRPA, in a joint project with the National Wildlife Federation and the Cornell Lab of Ornithology, developed the Wildlife Explorers after-school program. NRPA's membership includes several thousand agencies that provide affordable after-school programs to millions of kids.

An example of an NGO provider of out-of-school time is the YMCA or Y. This non-profit agency offers programming for after-school kids at the Ys themselves, and supports schools that have after-school programs. It has, for example, a strong partnership with the National Association of Elementary School Principals, and serves half-a-million students at thousands of locations.

The Charles Stewart Mott Foundation has, in recent months, been building a comprehensive mobile App that will be made available to afterschool providers across the U.S. to help them have easier access to rich curricula, lesson plans and content in science, the arts and more. The program called Mizzen by Mott is adding nature education content, via a partnership with the National Wildlife Federation, that can be useful to making more effective use of the outdoors in the afterschool setting.

A Green Education Support Network

The field of environmental education has a large nationwide force of many tens of thousands of non-formal education providers who can support pre-K12 schools in the creation and refinement of high-quality outdoor learning experiences. Examples include:

The North American Association of Environmental Education which represents a network of some 20,000 educators in schools, in non-formal settings, and other venues that can assist schools and educators with the development of outdoor education programs.

The National Association for Interpretation has several thousand members in the United States and Canada. Individual members include those who work at parks, museums, nature centers, zoos, botanical gardens, aquariums, historical and cultural sites, commercial tour companies, and theme parks. Commercial and institutional members include those who provide services to the heritage interpretation industry.

The Association of Nature Center Administrators represents a nationwide network of nature centers, outdoor learning and discovery centers, and more that can help school educators to make use of the outdoors in education.

Outdoor Classroom Benefits to Students and Educators

In the past 25 years, research conducted or collected by such organizations as the State Education and Environment Roundtable, the Children and Nature Network, the North American Association for Environmental Education, and the National Wildlife Federation, among others, shows a very positive relationship between environment-based education, particularly project- and inquiry-based learning. But the benefits for students in being and learning outdoors go beyond just academics. In 2019 these findings were confirmed by research that looked at more than 50 studies of the subject. This research found that students universally benefitted in their academics, brain development and more by being exposed to outdoor education.

The Child Mind Institute collects information on the benefits children receive from time outdoors and has made a benefits list that would be of interest to any parent. In includes:

- **Confidence:** informal and less structured outdoor play means children learn to control their own actions.
- **Creativity and imagination:** with outdoor play children can think more freely, design their own activities, and approach the world in inventive ways.
- **Responsibility**: children learn to take care of the environment.
- **More physical movement**: some GPS studies show that kids outdoors move twice as much.

Photo: Global News

- **Less stress and fatigue:** in natural environments, we practice an effortless type of attention known as soft fascination that creates feelings of pleasure, not fatigue.

The Center for Parenting Education adds to this list noting:

- **More friendships** – Creative play interactions with other children involve negotiating play rules, winning agreement on strategies, and celebrating results with team members.

- **ADHD relief** – A study from the University of Illinois compared the ability of children with ADHD symptoms to concentrate after a 20-minute walk in three settings. They found that, when the children walked through a park-like setting, there was a significant boost to their ability to concentrate. They did not reap the same benefits from a walk in a city area or a residential area.

- **Better performance in school** – There is an extensive series of studies, surveys and findings that indicate that spending time in nature, and particularly spending time learning outdoors about nature, supports improved academic performance in children regardless of subject.

Photo: Caroline Parker, Education NC

As noted above, an important 2019 meta-analysis study recognized, in an extensive bibliography, some of the important contributions that time in and learning about nature can make to a child's academic performance. The researchers from the Universities of Illinois and Minnesota assessed whether there is a cause-effect relationship between the two. In the comparison of more than 50 studies the researchers also determined that the studies "point to nature playing a key role in the development of pro-environmental behavior, particularly by fostering an emotional connection to nature. In academic contexts, nature-based instruction outperforms traditional instruction. The evidence here is particularly strong. It includes experimental evidence, evidence across a wide range of samples and instructional approaches, outcomes such as standardized test scores and graduation rates, and more. Nature may promote learning by improving learners' attention, reducing levels of stress, fostering self-discipline, increasing interest and enjoyment in learning, and promoting physical activity and fitness. Nature also appears to provide a calmer, quieter, safer context for learning and developmentally beneficial forms of play. It is time to take nature seriously as a resource for learning – particularly for students not effectively reached by traditional instruction.

The obvious effects of more time in nature would be reflected in improved overall health, but the National Institutes of Health reported in an encouraging 2015 study of children in Spain that brain health is affected too. The researchers found that the positive effects of nature exposure for children extend to improved cognitive functioning (including increased concentration, greater attention capacities, executive function and higher academic performance), better motor coordination, reduced stress levels, increased social interaction with adults and other children, and improved social skills.

Conclusion: A Time for Outdoor Classroom Advocates to be Heard

Photo: Alabama Wildlife Federation

This policy Guide is aimed at helping educators from all backgrounds, but particularly those with a love of environmental education, outdoor education and natural science, to become strong advocates for outdoor classroom development at schools. The timing has never been more critical as most of the schools in the U.S. are or will be receiving funding for Covid-19-era reopening, and the level of funding will be in the tens of billions of dollars. Current official guidance on school reopening either ignores or gives just the slightest mention to the use of outdoor classrooms as an approach to safer reopening. A nationwide corps of advocates for the use of the outdoors for both expansion space and to support green schoolyards is needed. Together, these advocates can achieve a huge step forward for environmental and nature education in the United States.

Note to readers: This Guide contains information on the use of outdoor classrooms and nature education as a suggested part of any carefully-considered pre-K-12 school reopening strategy during and following the Covid-19 pandemic period. The authors are not advocating, in any way, for premature reopening schools for in-person education that may be counter to the findings and studied recommendations of public health officials.

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