



Outdoor Learning in Cold Weather

Keep Moving through Winter and COVID-19

Maine ❖ New Hampshire ❖ Vermont

This position statement is the collaboration of the Inside-Outside Advisory Group. Reach out for guidance!

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Introduction

Snow or freezing rain will be part of many days throughout the winter months. *Do we need to go back inside, even as flu season and COVID-19 persist? No!* At least not on most days. What we need is preparation and planning, support and enthusiasm, and, most of all, warm and dry clothes to protect against rain and snow. All of this combined will result in joyful learning, enhanced safety, and positive results—*academically, socially, physically and emotionally.*

Since schools reopened for in-person teaching and learning in the fall of 2020 during a pandemic, in those *communities where teachers and their students have been outdoors in nature as much as possible*, the reported results have been excellent. The relatively low incidences of COVID-19 in Vermont, Maine and New Hampshire are associated with the widespread practice of mask-wearing, social distancing, and careful hygiene. Those factors have combined to create opportunities to do even more, safely, and consistent with educational and medical guidance, with positive results. Laughing children, relaxed educators, focused learning, and wearing masks as easily as wearing a winter hat—all of these have characterized what happens when nature-based education is the norm.

Does everyone need to be outdoors every day, all day? No, although that works well for many teachers and their students. Participating in outdoor learning is not a one-size fits all process. There is no one right way. We do know, however, that more time outdoors reduces health-risks and *enhances learning overall*, with a host of related benefits.

On that foundation, we believe that schools should continue to employ outdoor learning as part of their plans for effective education—throughout the winter and going forward. Time spent learning from and with nature provides measurable academic, social, emotional, and physical benefits.

It is sound policy to maintain and increase its implementation in our schools. We encourage an outdoor, nature-based approach during the school day, and in scheduling the school week, that can take place on school grounds, on nearby lands, in public spaces or at home with school guidance. In addition, when students are required or choose remote learning as well as other forms of schooling at home, we encourage learning to continue outdoors in backyards, neighborhoods and nearby outdoor places.



Photo by Eric Aldrich, Harris Center for Conservation Education
Jonathan Daniels School, Keene, NH

Our perspective is rooted in current understandings of the COVID-19 virus and a review of the literature on child development, the benefits of nature-based learning, and mental health resilience. For example:

- [Do Experiences with Nature Promote Learning?](#)
- [Yes, Your Kids Can Play Outside All Winter](#)
- [Classrooms Without Walls, and Hopefully COVID](#)
- [Catching Corona Virus Outside is Rare but Not Impossible](#)
- [Outdoor Learning: Another Option for Public Schools](#)

Winter Clothing & Gear

Well-designed clothing makes comfort in cold weather possible. Wool, fleece, and other fibers that insulate and wick moisture keep the body's core warm and prevent heat loss from the extremities. In order to learn outdoors in wintry weather, children and teachers will need insulated, waterproof boots; warm jackets; insulated waterproof pants; fleece or wool hats and neck warmers; and waterproof mittens or gloves and, ideally, wool socks. Dressing in layers makes it possible to modify body temperature, adjust clothing to match activity levels, and adapt to changing conditions. Layering is especially important when it's wet or cold. Two lighter layers are better than a single heavy one, as more adjustments are possible.

All children and teachers deserve access to the high-quality clothing that makes outdoor learning possible. Equitable access must become a regional priority, supported by education policy and funding. As we work to achieve this, we recognize the many ways that individual schools and their communities are providing for children. These include organizing gear swaps, developing gear libraries at schools, purchasing clothing with parent-teacher organization support or grant funds, and fundraising for particular items such as outerwear.

Food, Shelter, and Activity

Wintry weather brings us back to basics. Nourishing food, warm drinks, *shelter from the elements*, and physical activities that generate body heat are essential.

- ❖ Staying warm burns calories. Children need wholesome snacks and a healthy breakfast and lunch to fuel their outdoor learning. Fats and carbohydrates are important in a cold-weather diet, so add coconut oil, butter, maple syrup or other such ingredients to familiar recipes and foods to increase their nutritional and energy values.
- ❖ Children need to stay hydrated in all kinds of weather. Replace cold drinks with warm water and soothing teas as the temperature drops. A large-size Thermos with a cup for each child or individual insulated beverage bottles that children can carry will keep liquids warm for hours.
- ❖ Shelters such as school buildings, pavilions, tents, tarps, sheds, yurts and hoop houses can serve as warming stations, with windows, doors and other openings adjusted for air flow. Shelters can also be used for sedentary activities and those that require materials or technology that can't be easily transported outdoors. *Children will need access to bathrooms*. If the only available facilities are in the school building, other shelters can be situated with proximity in mind.
- ❖ When out and about, keep moving! Teach lessons in segments and move from place to place between. Flap like birds or scurry like squirrels on your way to the outdoor classroom, follow the leader, play *Fox and Geese* or introduce other movement games. Keep mobility challenges in mind, and adjust distances, activities, and locations accordingly.
- ❖ Standing out of the wind, making sure clothing stays dry, and sitting on an insulated mat rather than directly on snow or cold ground are also important measures to take.



Photo by Ben Conant, Harris Center for Conservation Education

Greenfield Elementary School, Greenfield, NH

Materials & Equipment

Some familiar indoor materials serve equally well in the outdoor classroom. Others must be exchanged for items that are more portable and weather-proof. For example, whiteboards and dry erase markers don't function once the temperature drops. Chalkboards, individual writing slates and chalk work perfectly well. Plastic buckets with lids serve a dual purpose: they can haul and store supplies, and serve as portable seating. Padded lids provide some outdoor luxury. A heavy-duty sled, able to glide along a gravel path or weedy trail as well as over snow, is a versatile means of transporting large or heavy items. Even a smaller sled is handy for moving many supplies to the appropriate spot. Zip-lock bags protect field guides and other books when not in use. Pencils won't smudge or run in damp weather, as many pens and markers do, and waterproof paper makes it possible to record data or write poetry even when it's snowing or raining.

Winter Curriculum

Winter is a season of abundance when it comes to teaching and learning. Intriguing topics for study are at the ready. For example, set up a bird feeding station. What can we learn by watching bird behavior? Find, follow, and map animal tracks and evidence to see who uses the school grounds besides the children. Figure out how squirrels communicate, or create ephemeral art with ice and snow. Where is the deepest snow near our school? Where does ice form at the school? Where are the warmest places outside? The coldest? Investigate seed dispersal, shadows, microclimates and more. Observe trees and twigs, explore friction, force and motion on the sledding hill, and write stories inspired by outdoor adventures.



Photo by Susie Spikol, Harris Center for Conservation Education

Hancock Elementary School, Hancock, NH

What could this look like?

Sample Schedule: Indoor Start, Daily Morning Outdoor Activity

8:00-9:00 Welcome & Weather

After a health check in front of the school building, students are welcomed into classrooms where windows have been adjusted for optimal ventilation and seating supports social distancing. After a nourishing breakfast or snack, the teacher initiates an activity or lesson to orient everyone to the outdoor time ahead. Students also assess the weather by checking the indoor-outdoor thermometer and local weather report, and observing conditions.

9:00 Prepare to Go Out

Students prepare for the outdoors by using bathrooms, gathering needed supplies and loading them into backpacks or buckets, and donning layers that are suited to the day's weather.

9:30 - 11:00 Outdoor Learning Activities

Students engage in outdoor activities that support learning goals in one or more curricular areas. Warming drinks and snacks are integrated to minimize the time children are sitting still. For example, kids might drink tea or munch a granola bar while the teacher reads, gives directions, or offers children individual turns to share observations.

11:00 Indoor Follow-Up

Students return to the indoor classroom and hang outerwear and extra layers where the clothes will be dry and ready for next use. The students then engage in activities that encourage them to extend or synthesize their outdoor experiences, such as collating and analyzing data, or adding to an evolving adventure story.

11:45 Lunch

When possible, lunch can take place in sunny or sheltered outdoor sites.

Afternoon

The afternoon schedule can mirror the morning, and include a substantial block for outdoor activity. Or, it can involve indoor lessons with outdoor breaks or recess.

Another option is to start the day indoors, and move this schedule outdoors from lunch through the afternoon.



Red italic text indicates web links to additional resources.

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