

# Go Outside to Learn:

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## The Value of Outdoor Learning Environments

Take them outside to learn! There is ample data that show just stepping outside activates our senses. The human animal evolved in the outdoor environment so it follows our bodies would be biophysically reactive to patterns and signals that the outdoor environment provides. We naturally, unconsciously, react, absorb and relax.





## Benefits of Outdoor Learning

The outdoors open up endless possibilities. Every place and space we experience offers an opportunity to learn. Every person has the capacity to learn in multiple ways; however, some grow stronger than others due to their experiences, opportunities (or lack of opportunities) and environment. What if our learning environments truly were the third teacher and stimulated learning in diverse methods? What would that look like?

series of numbers. In *The Economics of Biophilia*, Terrapin Bright Green documents the impact of life stress among children was significantly less in children with high levels of nature nearby.

Nature supplies social support for children as they interact with others in shared natural spaces. When children become engaged in nature, their neural mechanisms are allowed to rest and recover. Attentional restoration is critical; without it, children will increasingly respond to distracting stimuli, experience

more affective patterns by shifting the educational focus from secondary to primary sources. Traditional classroom teaching uses textbooks, lectures, video and internet as instructional tools. The outdoor classroom exposes students through direct experience and fosters active, hands-on, inquiry-based learning; experimental teaching methods can engage students in the process as well as the outcomes. Nurturing all intelligences, the outdoor environment inspires learning and connects with those that may not thrive in a traditional classroom including students with learning disabilities.

Immersion in the outdoors makes learning a multi-sensory experience. By engaging the senses of touch, smell, hearing, taste, seeing, students retain an intimate physical memory of activities that are long lasting and synergistic. E.O. Wilson's Biophilia Hypothesis reminds us that the human species, having evolved in the natural world, has deeply-rooted need to associate and connect with nature. As a mini-ecosystem, the "outdoor classroom" fosters the use of systems thinking and emphasizes the interconnectedness of all things. Through exposure to the intricate web of life, students come to understand that complex natural and societal systems often require holistic rather than linear solutions. In seeking a holistic understanding, outdoor learning lends itself to interdisciplinary studies employing multiple academic disciplines.

Global environmental issues are reflected in microcosm and often lead to service learning projects that emphasize social involvement and responsibility. Effectively impacting the educational culture by leading through example, the "outdoor classroom" projects a positive message to the community regarding the value of education. This amenity enhances neighborhoods and blurs the boundaries between academic learning and creative curiosity. Integrating use of outdoor learning into curriculum begins to balance digital learning and starts to cure nature deficit disorder.

The data is clear. Outdoor learning increases attention span, enhances memory, reduces stress, improves mood and opens the mind to greater creativity. A 2008 study by University of Michigan psychologists found that walking outside or even just looking at pictures of natural settings improves directed attention and the ability to concentrate on a task. Put another way: Nature restores our ability to focus. The same study supported previous experiments showing that being in nature improves memory — by 20 percent when it came to recalling a

greater loss of focus and have difficulty managing tasks. In a pilot study March 2011, psychologists found that students in an Outward Bound course showed a 40 percent boost in frontal-lobe activity, which is linked to creativity, after four days in the backcountry. Enhancing daily routines to support the interface of nature and the outdoors strengthens our awareness.

## Curriculum Application

The "outdoor classroom" venue offers applications for curriculum in







## Nature Deficit Disorder

Richard Louv's book, *Last Child in the Woods*, spawned an international movement to reconnect kids and nature. He coined the term "nature-deficit disorder" to describe the human costs of alienation from nature listing: diminished use of senses, attention difficulties and higher rates of physical and emotional illness. His new book, *The Nature Principle*, delivers another powerful call to action, this time for families. "The future will belong to the nature smart, those individuals, families, businesses and political leaders who develop a deeper understanding of the transformative power of the natural world and who balance the virtual with the real. The more high-tech we become, the more nature we need." Students of all ages are at risk; digital learning, social networking, digital gaming and general fascination with technology need balance. Architects and designers can help provide opportunities in school design for "natural" alternatives.

## Environmental Advocacy

In nurturing the naturalistic intelligence and creating more opportunities for outdoor learning, we are effecting change directly and indirectly. Enhancing learning and retention is the direct benefit to the students, creating advocates for the environment is the indirect benefit to our world. Armed with a more intimate knowledge of the environment and appreciation for its value, students are more likely to feel the urgency to change, take action and find solutions. Move forward with optimism, creating learning environments that teach environmental advocacy through thoughtful design.

## Designed Environment

There are few places untouched by some form of design. Even what is considered "natural" has been rehabilitated, intentionally designed to look natural. Thoughtful placement of stimuli, a riot of colors and textures, can create a nurturing environment for learning. These stimuli include: plant life, scale of learning, sense of enclosure, music of

nature, linguistic reflections, and change in elevation, edible landscape and therapeutic qualities. Strengthening all intelligences through the environment is the goal of the "Outdoor Classroom."

## Plant Life

The natural patterns, colors and textures of plant life stimulate the Naturalistic Learner. Education comparing proportions, variety, pollination, native and regional adaption employ plants as primary educators. In the book, *Biomimicry; Innovation Inspired by Nature*, Janine Benyus describes how nature is a model, measure and mentor. By examining the systems of nature students discover processes to solve human problems, e.g., a solar cell inspired by a leaf's photosynthesis.

## Scale of learning

Absorption and retention of information can depend on the venue of delivery and whether the experience is individual or shared. Variety of scales and proportions offers both intentional

and spontaneous opportunities. Intrapersonal learners may prefer individual reflection or small group learning, while interpersonal social learners need the discussion and feedback of a larger group.

### Sense of Enclosure

Protection from the elements, quality of natural light, framing a view or vista, and create a sense of enclosure that can encourage learning. Designing places intentionally which delight in shape and orientation inspire inquiry.

### Music of Nature

Listening to surroundings, fully using our senses improves our cognitive capacity. Designing space with attention to acoustical stimuli broadens our palette to include water features and bird habitats and human laughter. Providing places to sit and listen to the symphony of natural sounds can help clear and focus the mind.

### Linguistic Reflection

Didactic landscapes provide literal educational opportunities through reading the labels of specimens or narratives descriptions. Poetry, quotes and dedications inspire reflection and contemplation. A quiet place to sit and read can nurture the naturalistic linguistic learners in our midst.

### Change in Elevation

Movement through the landscape, changing levels forces a different perspective on learning. Stairs, ramps, bridges, tree houses, and site walls change our point of view. Challenge a transition to become a teaching device and motivate the body kinesthetic and natural intelligences.

### Edible Landscape

“People think of the mind as being located in the head, but the latest findings in physiology suggest that the mind doesn’t really dwell in the brain but travels the whole body on caravans of enzyme, busily making sense of the

compound wonders we catalogue as touch, taste, smell, hearing, and vision,” write Diane Ackerman in her book, *A Natural History of the Senses*. Understanding where our food comes from, what plants need to grow and thrive, how to organically solve pest problems, when to plant and harvest, is knowledge pivotal for human survival.

### Therapeutic Qualities

Research confirms that direct contact with nature increases mental health and psychological and spiritual development. Benefits include stress reduction, a sense of coherence and belonging, improved self-confidence and self-discipline, and a broader sense of community. Connecting the exterior with the interior through views, paving patterns, colors and textures, enhances learning and health.

### No Limits

What is the definition of an “outdoor classroom”? Simply a place outside that invites learning; it could be anywhere our imaginations take us. What if every indoor classroom had a correlating outdoor classroom? Of course there are real limits; budget, schedule, location, terrain, climate, storm water management, access, technology and material limits. Proceed with optimism, and share the scientific data that documents the value of learning outdoors. Be inspired to create your own curriculum and definition of what is an “outdoor classroom.”

### Conclusion

Go Outside to Learn! Nurturing the learner in all of us will improve

**EDspaces Education:** Robin Randall and Loren Johnson will be joining a panel presentation on “Green Schoolyards for Healthy Schools and Healthy Communities EDspaces 2017. Their session is on Thursday, October 26 at 8:00 am in Kansas City, MO.

our ability to see things clearly and digest information more effectively. This knowledge sparks application, translating the abstract into action. So research, ponder, present, apply, analyze, improve and then apply again. If we have knowledge and we don’t apply that knowledge to action we are negligent. Outdoor learning environments, often an afterthought in design projects, are a key ingredient in programming educational facilities. So get outside today with a new perspective, breathe deeply and take the path less traveled, as Robert Frost wrote, it will make all the difference! ■

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