

## Learning About Nature

For infants and toddlers, adventures in nature expose them to a world that they do not experience indoors. Many caregivers wonder how to start infants and toddlers on a path toward greater awareness and appreciation of nature. With their highly attuned senses, very young children are primed to explore and develop an affinity with the natural world. In addition, by learning how to gently handle and care for living things, children also become more sensitive to the needs of, and differences, among people. “Deep bonds can form between children or child and adult when they share experiences with nature. When children have daily opportunities to care for plants and trees, animals and insects, they practice nurturing behaviors that help them interact in kind and gently ways with people as well,” says educational consultant Nancy Rosenow (2008, p. 10).

Research shows that children benefit from contact with the outdoors (e.g., fresh air, vitamin D, better eating and sleeping patterns) and may suffer health problems (e.g., obesity) and psychological fears (e.g., insect phobias) when deprived of regular interactions with nature (Kahn & Kellert, 2002). In fact, NAEYC’s early childhood standards and accreditation criteria specify as an essential curriculum component that programs include “both indoor and outdoor experiences” (NAEYC, 2007, criterion 2.A.07.b) and that the facility’s physical environment has a safe outdoor play area (criterion 9.B).

Unfortunately, the amount of time young children spend outdoors is decreasing, not only in urban areas and developing countries but also worldwide. For infants and toddlers, caregivers tend not to take this age group

outside because it takes too much time to get them dressed and/or they are concerned about children putting “dirty” things in their mouths. To help reverse this trend, child care settings can think more broadly about outdoor spaces and children’s interactions with the natural world. These changes do not require major investments of money or time. Rather, they entail a shift in attitude and can be undertaken in small, incremental steps.

### Experiences with the outdoors

With varied hands-on and feet-on experiences, infants’ and toddlers’ interactions with and attitudes about nature can take many forms. Ideas for caregivers include the following:

- **Grow flowers and vegetables** — Where space is available, gardening can be done in a plot in the ground. For urban or rooftop areas, use planter boxes. Children will enjoy digging in the dirt, watching seeds germinate, watering flowers, and tasting vegetables they grow themselves.
- **Provide easy-to-care-for pets** — Infants and toddlers benefit from having pets in the classroom. They are fascinated watching the behavior of animals as they eat, sleep, and play. Pets also provide an opportunity for adults to model simple caregiving behaviors that children can often help with, such as providing food and water or cleaning out a tank or cage. Under careful adult supervision, children can also learn how to handle living creatures gently. Fish are the easiest pets to maintain, although guinea pigs and other small animals are also feasible.

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- **Welcome all weather** — Except for extreme conditions of heat, cold, wind, and precipitation, caregivers don't let "bad" weather stop them from taking children outdoors, even for a brief period of time every day. Provide, or ask families to provide, weatherproof jackets and footwear so children can splash through puddles; pat snow into balls; and see, hear, and smell the change in seasons.
- **Take neighborhood walks** — Young children enjoy such sensations as the warmth of the sun, caress of the wind, chattering squirrels, and chirping birds. For older toddlers, play I spy games and encourage them to look for animals or plants with familiar characteristics (e.g., squiggly worms, red flowers). To guarantee that such walks are relaxed and enjoyable, Alyson Williams (2008) of the Smithsonian Early Enrichment Center advises caregivers to allow plenty of time to get infants and toddlers dressed and loaded into strollers and wagons. (Note: Remember that taking walks in strollers or wagons should not be the only contact young children have with nature. They also need direct, hands-on contact with nature in the outdoor play area.)
- **Look out the window** — At times of day, or periods of the year, when children cannot go outside, look out the window with them. Watch and comment on the effects of the weather, for example, how the ground disappears under the snow or how the pavement turns darker in the rain. "Bend" with toddlers in the same way that plants bend in the wind. Feel the cold window pane.
- **Bring the outdoors into the classroom** — Bring leaves and snow indoors for the sand and water table. Collect twigs, pebbles, shells, fallen leaves, and other natural objects for children to feel, smell, crush, roll, put in and take out of containers, sort, and use in their pretend play.
- **Hold fears and prejudices in check** — Be careful not to communicate disgust or fear toward the natural world. Children are quick to pick up on such attitudes and adopt them as their own. Approach nature even-handedly, even if it does not come naturally at first.
- **Share the children's sense of wonder** — Rediscover the fascinations of nature along with the children. Pay attention to the buzzing of insects, the shimmering drop of sunlit dew on a leaf, the structural complexity of dried grass stalks, and the smell of the earth after a rain shower.

### Learning in the outdoors

The "outdoor classroom" supports learning in many domains: "The outdoors is *not* just a place for children to release pent-up energy or discover odd bugs (although those are definitely important outdoor activities); it is a total learning environment" (Neill, 2008, p. 116). Depending on their developmental level, children playing outdoors make choices, solve problems, express feelings, imitate and pretend, make friends, build, move, sing, talk, and explore the properties of objects. Experiences with nature support scientific and aesthetic thinking, so children "appreciate beauty, express creativity, and perceive patterns and variety on sensory

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dimensions of their world and themselves” (Torquati & Barber, 2005, p. 40). When outdoor play spaces are created with attention to the needs and interests of infants and toddlers, they learn something in every content area. For example:

- **Approaches to learning** — Children choose what area of the outdoor play space to explore. They solve problems with dirt, water, wheeled toys, and buckets. They learn to put on their coats, hats, and mittens on their own.
- **Social and emotional development** — Children begin to resolve conflicts, such as who gets to use the red shovel. They share a ride on a sled, squat side by side to look at a caterpillar, and shout with glee when a worm tickles their finger.
- **Physical development and health** — Children crawl and roll on the grass, climb on a tree stump, straddle a log, run between the picnic table and the tree over and over (and over) again, and jump over (or into) a puddle. They carry their discoveries from one part of the play yard to another.
- **Communication, language, and literacy** — Children enjoy the sound of their voices yelling in the open air. They talk about the interesting things they discover on a branch or burrowing in the ground. Children are naturally curious and will continually ask why and what questions.
- **Cognitive development** — Children use all their senses to explore an object, for example, how does this dried leaf feel? Does it smell? They notice how things are the same and different and use their bodies to move through space at different speeds. Children build with twigs, leaves, and pebbles and fill and empty pails in the sandbox. They remember where they left the riding toy and return to that location to ride it again. Children look at the same thing from different perspectives — from under the climber, behind the bush, upside down lying on their back or stomach, or swaying back and forth in the swing.
- **Creative arts** — Children mold shapes with snow and make marks in the dirt with sticks and shells. They draw with chalk on the pavement. Children pretend to be doggies and crawl on all fours. They listen to the musical sounds of insects, birds, and wind chimes. Even their own voices sound different in the open air than they do indoors.

“No matter where we live,” says Rose-  
now (2008), “we all have a chance to enjoy the enduring beauty and goodness of nature. We must work hard to ensure that the next generation has that same opportunity” (p. 13). One group aiming for that future is the Nature Action Collaborative for Children (NACC), an international initiative of the World Forum Foundation. Membership is free, and the collaborative offers many resources and promotes the sharing of ideas. For more information, visit the NACC website at [www.worldforumfoundation.org/wf/nacc](http://www.worldforumfoundation.org/wf/nacc).