

# What Children Learn Outdoors

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When you think about children's time outdoors, you don't necessarily focus on its value for teaching academic content. Nevertheless, there are many ways to connect content, teaching, and learning outdoors. As you become knowledgeable about each of the components of literacy, math, science, social studies, the arts, and technology, you will find many ways to promote children's learning outdoors.

## Literacy

Expand children's **vocabulary and language** by asking questions and encouraging them to describe what they see. Use a variety of adjectives when you observe with children: slimy, bright, bold, glowing, rough, furry, prickly, and so on.

Promote **understanding of books and other texts** and **literacy as a source of enjoyment** by including resource books such as guides to living things. Children can use them to find pictures of what they discover outdoors. Read stories such as *The Very Busy Spider* and *The Very Hungry Caterpillar* (Eric Carle), *The Carrot Seed* (Ruth Krauss), *Miss Emma's Wild Garden* (Anna Grossnickle Hines), and *Where Once There was a Wood or In the Small, Small Pond* (Denise Fleming).

Teach children jump rope rhymes and clapping games to promote **phonological awareness**. Have them tune into the sounds and sights around them: how the horn on a car sounds vs. the horn on a truck or bus; identifying animal sounds—crickets, birds, mosquitoes, frogs, and dogs.

Teach children about **print and letters and words** by providing traffic signs for wheeled toys. Provide clipboards for children to record observations, cardboard to make signs to identify plants in the garden, or paper to leave a message for the custodian.

## Mathematics

Promote **problem solving** by guiding children to find solutions to problems they encounter (e.g., What can we do to keep the balls from going over the fence?).

Teach **number concepts** by talking with children about how many seeds to plant, and helping them mark off the days until the seeds sprout. Use numbers and counting in games such as "Hide 'n' Seek," "Hopscotch," or "Mother, May I?" Reinforce one-to-one correspondence by having each child find a partner for an activity or a game such as "Squirrels and Trees."

Encourage children to explore **patterns and relationships** by noting the patterns on caterpillars, flowers, and leaves. Suggest making a design with the leaves or shells a child has collected. Play follow the leader and have children replicate a movement pattern such as jump, jump, clap, jump, jump, clap.

Emphasize concepts about **geometry and spatial relationships** by taking a shape walk, for example to find triangles or rectangles. Provide boxes, tubes, and other containers for children to use in building projects. When children are on the climbing equipment, use words to describe their position in space (e.g., under, over, inside, next to).

Expose children to **data collection, organization, and representation** by having them sort and classify the objects they find outdoors and making a graph where they can organize and compare the items in their collections.

Nurture children's interest in **measurement and graphing** by including string and yardsticks so they can measure the plants in their garden or the distance between structures outdoors.

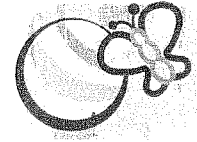
## Science

Guide children's development of **process skills** by posing questions such as: What would happen if . . . ? How can you find out? What did you learn? Encourage children to be good observers by showing them that you too are interested in finding out what is waiting for you each day outdoors.

Expose children to **physical science** concepts by offering them balls, ramps, tubes, water wheels, funnels, and sifters and by taking an interest in how they use these materials. Set up water tables or plastic pools so children can explore the properties of water.

Encourage children to explore **life science** by putting up bird feeders and keeping them stocked all winter; keeping pets outdoors if feasible and teaching children how to care for them; maintaining a worm farm; taking an interest in all forms of life outdoors. Collect caterpillars and study their eating habits and their life cycle. Bring out a stethoscope so children can listen to their heartbeat after running around the yard.

Promote understanding of the **earth and environment** by learning about trees and plants in your outdoor area and planting a garden with children. Explore shadows: what makes them, how they move, how long they are. Encourage children to collect all sorts of rocks and compare them; examine dirt from different locations; measure puddles after a rain and see what happens to them; collect litter and recycle. Study the seasons and the changes that occur in each one.



### **Social Studies**

Encourage learning about **spaces and geography** by talking about distances when you take a walk (e.g., which is further, the neighborhood park or the post office); providing paper and markers so children can draw their playground.

Explore concepts related to **people and how they live** when you take walks. Identify what stores are in your neighborhood and what different kinds of houses, or visit a construction site.

Make children aware of **people and the environment** by taking a trip to a nearby river, lake, or ocean to see how people use water in the environment and to find out about pollution. Plan a project to clean up litter around the school.

### **The Arts**

Promote growth in **dance and music** by encouraging children to use their bodies freely outdoors; bringing music outside so children can dance and move to the different beats; encourage children to move like different animals.

Nurture the **visual arts** by bringing paint, crayons, colored chalk, and other art materials outdoors. Encourage children to observe carefully and draw what they see—clouds in the sky, caterpillars, a flower.

### **Technology**

Increase children's **awareness of people and technology** by talking about different tools and machines they see and use outdoors (e.g., trash trucks, pulleys, phone lines, walkie talkies, pipes and elbows, magnifying glasses, camera).

Provide **technology tools** for children to use outdoors such as binoculars, pulleys, microscopes, thermometers, magnifying glasses, cameras, and a digital camera if you have computers in your classroom.

From this sample list, you can see that the outdoor environment really does expand the opportunities for children to learn. We will build on these suggestions in the next section, where we describe in more detail the role of the teacher.