



Early Childhood Knowledge and Learning Center

## Playing in Weather from Rain to Rainbows

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[headstart.gov/teaching-practices/play-head-start-way/playing-weather-rain-rainbows](https://headstart.gov/teaching-practices/play-head-start-way/playing-weather-rain-rainbows)

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Whether it is snowing, raining, sunny, windy, or cloudy with a rainbow above, playing in or about the weather can be an incredible sensory and imaginative experience for young children. In addition to sparking their creativity, children learn that weather and nature are everywhere, and everyone can be part of them. For example, simply providing children with ribbons, scarves, or bubbles to observe how they move adds a sense of wonder on a windy day.



These outdoor experiences are important because they help children learn to appreciate nature early in life. Children's positive experiences with play outdoors, weather, and learning in nature will likely play a part in how they come to value the time they spend outdoors as adults, which offers many health benefits throughout their lives.

Concepts children can learn outside include how the sun dries puddles, melts snow, and shines through water to make rainbows. The power of the wind to make things move comes to life when children experience a walk outside on a windy day. When children are encouraged to play in different kinds of weather, they learn about the world around them and come to appreciate weather in all its forms, from rain to rainbows!

### **Be intentional in your exploration.**

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- Plan experiences for children to practice dressing and undressing for different types of weather, and make a game where children predict which clothes to wear based on the day's weather forecast.
- Follow children's leads and adapt plans to take advantage of unexpected discoveries like how water flies when splashing in a puddle or how the colors mix in the sky when children see a double rainbow.
- Provide physical and emotional support for children or families who are hesitant about being outside in rain, wind, or snow. Talk to children and families ahead of time about what they might experience and reassure them of your presence and support.
- Describe what children point to, see, and do (e.g., label objects, actions, and feelings).

- Talk about the weather during large group times, including how children know what the weather is.
- Plan and organize ahead of time to allow enough time for dressing children in outerwear, spending quality time outdoors, undressing indoors, and transitioning to the next daily experience or routine.
- Plan ahead for children who need extra time to dress for outdoor time by starting the process earlier or having one staff person assigned to provide extra help. Planning ahead saves time so that children don't miss outdoor experiences. Consider taking children on neighborhood buggy rides and walks and encourage families to do the same. These outings expose children to new things to see, hear, touch, and smell, and they help children learn about their communities. Ask children about the weather or precipitation they are seeing, hearing, smelling, or feeling. Narrate the walk, describing what you see and hear for infants who are not yet verbal. Watch for and acknowledge nonverbal responses.
- Work with the Health and Mental Health Services Advisory Committee to develop, revise, and implement safe practices and procedures that support children's development and respect staff and families' beliefs about safe outdoor play and exploration in various kinds of weather.
- Help children explore water, ice, snow, or other types of precipitation by:
  - asking questions to guide exploration,
  - encouraging children to express their ideas in words and drawings,
  - helping make connections between actions and results,
  - showing enthusiasm, and
  - modeling curiosity.
- Review and build upon what children have already learned about the way water moves.
  - Reinforce the idea that water takes the shape of what it is in.
  - Explain that something that moves like water and takes the shape of what is holding it is called a liquid.
  - Help the children identify other familiar liquids. Can you think of other things that move like water? What about things that we drink?
- Read books about rainbows and colors and talk about how and when rainbows appear. Use a hose or other materials to help children create their own rainbows.
- Talk to children about the colors of rainbows and add color to water through food coloring or paint. Encourage children to stir the liquid and see what happens. Suggest mixing colors and ask children to predict what colors will be created when mixed.



- If available, encourage children to look through color paddles or translucent blocks to see the world through different colors.
- When on a walk or playing outside, encourage children to find colors in materials or nature around them.



### **Gather materials to support storytelling.**

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- Plan with your teaching team or families by brainstorming ideas and collecting materials to prepare to be outside, including appropriate outerwear or umbrellas.
- Know the types of child and adult clothes that are appropriate for different weather conditions. Whenever possible, provide extra outdoor clothing for children and adults. The lack of appropriate clothing often reduces time spent outside, rather than the weather condition itself.
- Use smocks or old shirts to protect clothing when encouraging children to splash in water.
- Provide different types and weights of materials like ribbons, scarves, and string to experiment and play in the wind outdoors.
- Collect rain water or snow and bring inside to explore in sensory tables or bins. Provide small shovels, spoons, cups, buckets, and other materials for scooping, pouring, and more.
- Provide books about children and adults enjoying different types of weather, from sun to rain to wind or snow!
- Include scientific books about weather or colors in science centers, along with materials to simulate weather or explore colors.

### **Consider adaptations that help everyone engage.**

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- When planning to go outside to explore weather, allow ample time for all children to get ready and to transition back into indoor activities. Some children, especially younger ones, may need extra time or support with putting on and taking off layers.

- For children who are sensory avoidant, provide gloves or tools to allow exploration without direct contact with water, snow, etc.
- Share joy in all weather! Brainstorm and plan with families and teaching teams to ensure that all children can explore different kinds of weather. For example, if puddles are difficult to explore for children using mobility aids, offer splashing opportunities at waist level.
- Add loops or attach scarves to bracelets to support children with different fine motor abilities.
- Talk about weather using many senses, from sight to sound to touch to smell. Children with limitations related to one sense can still delight in weather using others.
- Learn weather words in the home or Tribal languages of the children in your program. Share them with all children to use in your weather exploration!



### **Create a culture of inquiry by asking great questions.**

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One great way to extend conversations with children is by asking meaningful questions like, “What do you think will happen next?” Open-ended questions like this, with many possible answers, allow children to express their ideas, explain their thoughts, and make predictions. For some children, especially infants and toddlers, this may mean asking a question and watching for their nonverbal responses. You can then prompt them with gentle cues or label gestures to help guide the conversation.

- What does the snow feel like?
- How does that breeze feel on your face?
- What happens to trees when it is windy? Can you show me how trees move in the wind?
- What do you see in the sky right now? Are there clouds, the sun, or maybe a rainbow?
- What do you hear when it rains? Can you make the sounds?
- How much rain do you think we will find in our rain gauge?

## Take a Look

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### Nature-based Learning and Development for Teachers

Playing in nature is fun for children. It also supports learning across ELOF developmental domains. In this video, learn how to use the natural world as a learning tool to improve outcomes for young children. Explore how teachers can use nature in their daily routines to enhance children's development.

### How to Play in Nature: Science Ideas for Teachers

Children are born with curiosity, a sense of wonder, and a desire to learn. In this video, explore ways to use ideas from nature to encourage science learning. Learn how to plan science lessons as a sequence of activities with an overall theme. Watch examples of classroom teachers exploring physical science concepts during everyday learning activities.

## Digging Deeper into Weather and Learning Outdoors

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Spending time outdoors every day, whether it's sunny, cloudy, or snowy, is a rich and important part of a program's curriculum for young children. From the very beginning, children satisfy their curiosity by exploring with their senses. Being outside presents children with a new range of sights, sounds, smells, and hands-on experiences. Regardless of whether children live in urban, suburban, or rural communities, exploring the outdoor world through weather provides opportunities to observe, discover, and learn that are not available indoors.

The following are examples of ELOF knowledge and skills that young children develop through the curriculum's outdoor experiences.

### **Social and Emotional Development**

Children learn to play together when they take turns using pails and shovels, share a ride in a wagon, and chase each other. Through direct, hands-on experiences, young children learn to be gentle with living things and with each other. Sharing experiences in nature can support growing relationships between children and educators. Experiences in caring for plants, animals, and trees can support growth in developing kindness and gentleness. These skills in turn help children interact with peers and adults in their lives.

### **Gross Motor, Fine Motor, and Perceptual Development**

Because outdoor play spaces are often more varied and less structured than indoor spaces, children have more freedom of movement to develop their gross motor skills in novel ways. This may include crawling or rolling on grassy hills, standing and balancing on bumpy or unlevel surfaces, and jumping over puddles and sidewalk cracks. Small-motor muscles are developed as children use a pincer grasp to pick up and fill containers with small natural objects or hold paintbrushes as they paint walls with water. Children develop perceptual

skills as they move their bodies through space in different ways and at different speeds and as they observe the world from different perspectives (e.g., lying on their backs on a blanket, standing on top of a hill, or swinging back and forth in a swing).