

A photograph of children playing in an outdoor natural construction area. The ground is covered in wood chips. In the foreground, a child in a red shirt is sitting on a large log. In the background, other children are playing with various wooden structures and logs. The scene is brightly lit, suggesting a sunny day.

How-To Guide

Natural Construction

Natural construction provides opportunities for children to build in small groups or individually, blending gross motor and fine motor development while fostering young imaginations and creativity. Tree branches, tree slices or 'tree cookies', sticks, and wood blocks from scrap lumber, to name a few, are an easy and cost-effective way to introduce materials that support natural play and learning in the outdoor learning environment.

Duration



1 - 2 hours

of People



1 - 2

Required Effort



Straightforward, minimal



Photo: ECHO



Photo: ECHO



Photo: Natural Learning Initiative (NLI)



Photo: NLI

Materials

- Stumps (6" to 18" long, 6" to 24" diameter)
- Tree slices or 'tree cookies' (1" - 4" thick)
- Branches at a variety of diameters (2" to 4" dia.) and lengths (up to 96")
- Sticks at varying lengths and no less than 3/4" diameter
- Scrap lumber (2 x 2, 2 x 4, 2 x 6, or 2 x 8) at varying lengths (6" to 96")
- Heavy grit sandpaper (40-60)
- Access to power
- Non-toxic, outdoor water-based wood sealer
- Storage (bins, baskets, basins, etc.)

Tools

- Chainsaw
- Handsaw and/or loppers
- Orbital power sanders
- Extension cords
- Leaf blower or air compressor with air nozzle
- Paint brushes
- Paint trays
- Drop cloths
- Eye and ear protection
- Gloves
- (Optional) Wheelbarrow
- (Optional) Hatchet



Photo: NLI

Implementation Steps

- 1 Gather materials**
 - Contact local arborists or tree companies, look for tree work being done in your community, check with your municipality or local parks department, and keep an eye out for suitable material on the side of the road.
- 2 Prep**
 - *Bark should be left intact!*
 - Sand/bevel any accessible sharp edges, protruding branch nubs, and particularly splintery areas.
 - Make sure that materials are free of poking hazards.
- 3 Seal/Weatherproof**
 - Using the leaf blower or an air compressor, blow off any dust from sanding.
 - Apply non-toxic, water-based wood sealer per product instructions.
- 4 Store in desired location**
 - Similar to learning centers in classrooms that each have their own storage for materials, storage is critical for natural construction settings so that natural materials are seen as intentional, and are easily accessible to children.

Considerations

- Consider the size of building materials in relation to the age of the intended users, i.e., some larger branches and sticks that may be appropriate for preschoolers will be inappropriate for toddlers.



Photo: NLI



Photo: ECHO



Photo: NLI



Photo: NLI



Cover photo
credit: ECHO

Disclaimer

Before installing new play and learning components in your outdoor learning and play space, please check with local regulatory agencies to ensure compliance with health and safety requirements. While the intent is to provide a general resource for reconnecting children to nature, the authors and program sponsor disclaim any liability based upon this information. PLAE Inc. assumes no responsibility for the design or installation of outdoor components for play and learning. In no event will PLAE Inc. be liable for any loss or damage including without limitation, indirect or consequential loss or damage incurred during the construction or use of the outdoor learning environment.

For more outdoor project ideas, visit:
www.plaeinc.org/ECHO