



# How-To Guide

---

## Habitat Gardens

Using native plants, habitat gardens provide the four elements that wildlife need to survive: food, water, cover, and places to raise young. In garden settings, typical wildlife that can be expected are birds, small amphibians and reptiles, insects and other essential pollinators such as butterflies and bumble bees. Habitat gardens not only help to create a healthier local ecosystem through added biodiversity coupled with sustainable gardening practices, but provide endless learning opportunities for young children.



### Duration



1 - 2 Days

### # of People



2 - 10

### Required Effort



Moderate/high level of effort



Photo: National Wildlife Federation (ECHO)



Photo: Derek Brandt

## Materials

- Native plants suitable for your region and growing conditions
- Compost
- Cardboard (enough to cover the square footage of the garden)
- Organic root inoculant or organic transplant fertilizer
- Shredded mulch
- Access to water
- (Optional) Boulders
- (Optional) Birdbath
- (Optional) Irrigation: drip system components
- (Optional) Landscape fabric with fabric pins



Photo: Natural Learning Initiative (NLI)

## Tools

- Lawn mower or string trimmer/ weed whacker
- Utility knife
- Hard rakes
- Rounded spade shovels
- Sharpshooter shovels
- Flat shovels
- Pick mattocks
- Rockbars (to break up rocks and hard clay)
- Wheelbarrow
- Garden hose
- Sharp by-pass hand pruners
- Irrigation hand tools: pliers, tubing cutters, etc.



Photo: Jacqueline Houle



Photo: Marian Herz

## Implementation Steps

- 1 Choose the desired size and location for the garden**
  - A sunny location will best support flowering perennials.
  - A spot protected from wind will benefit butterflies.
- 2 Gather materials**
- 3 Prep the area**

This can be done in a few different ways, however, generally an area can be prepped using the following steps:

  - Cut any existing weeds or grass all the way down to the ground and spread out evenly.
  - Spread an inch of cured compost over the area and rake it out as smooth as possible.
  - Using the hose, soak the area with water.
- 4 Cover the area with cardboard**
  - Overlap cardboard edges six inches.
  - Soak it well with the garden hose once it is in place to help the cardboard settle to the ground.
- 5 Layout native plant material in desired locations**
  - Pay attention to the mature sizes of plants when placing them next to edges and other plants.
- 6 Plant**
  - Carefully cut holes in the cardboard using a utility knife.
  - Remove plants from their containers once their respective hole is dug.
  - Loosen roots from the shape of their container to help prevent them from becoming root bound in their new home.
  - Consider tossing a couple handfuls of organic root inoculant or organic transplant fertilizer into each hole, and with the backfill, before popping each plant in the ground to help ease the stress on plants from planting.
  - Once in place, prune any dead or damaged branches from woody shrubs and perennials.
- 7 Water the plants in!**
  - IMPORANT: Once planted, IT IS CRITICAL to water each plant at its base for 1 to 2 minutes until fully saturated. This will help alleviate the root stress associated with being handled and transplanted, as well as aid in getting rid of harmful air pockets in the soil near roots.
- 8 Set up drip irrigation**
  - Be sure that emitters are properly placed at the base of each plant so that each plant receives sufficient water.
  - Once in place, conduct a test run of the system before burying it with mulch. This step will help you spot leaks easily.
- 9 Mulch**
  - Mulch the area at an ideal depth of three inches. While it may seem like a lot at the time, especially for short plants, the mulch will settle. This is the optimal amount of mulch to slow the loss of moisture in the ground, as well as to further deter weeds from popping through.
  - Water the mulch once it is in place to help it settle.
- 10 Install birdbath or other shallow water source for birds, pollinators, and other beneficial insects**
  - For licensed child care centers, check your Licensing and sanitation regulations regarding bird baths. Typically, these would have to be filled and emptied each day to avoid having standing water in the Licensed space.
  - If birdbaths aren't allowed, consider placing them outside of the fenced-in Licensed space, either by the front entrance or outside of a classroom window. This guidance also applies to bird feeders.
- 11 Regularly maintain for weeds, trash, and refilling the water source**
  - A stewardship plan outlining what needs to be done, and when, will greatly help in maintaining the garden.
  - Consider cutting back dead plant material in early Spring (rather than in Fall after the first frost) to provide valuable elements of habitat for wildlife throughout the Winter.

# Considerations

- **Always call 811 before you dig, to locate buried utilities.**
- If starting in a grassy or overgrown area, try 'scalping' the area with a mower on its lowest setting, or with a string trimmer/weed whacker, cutting the plants down to the soil.
- Cardboard will smother weeds underneath it while breaking down. Compared to landscape fabric, cardboard is especially a good choice for building healthy soil and allowing the garden to fill in season to season.
- For REALLY weedy areas, especially areas that might not get regular attention (such as at schools and parks), landscape fabric is recommended to help keep weeds at bay.
- Shredded mulch varieties are recommended for windy conditions as it binds together when it settles, staying in place.
- NOTE: When digging in hard packed clay use pick mattocks and rockbars to break it up, only using shovels to scoop out the loose material.
- For additional resources on gardening in your region, check with your local Cooperative Extension System or native plant society.
- Supplemental water through drip irrigation will only be necessary for the first year or two until plants are established. Because they are native to your region, they are adapted to regional annual precipitation which should be sufficient.

# Native plants to include

- **Groundcover**
  - Provide food and cover for beneficial insects and pollinators, cover over winter, and places to raise young for beneficial insects.
- **Grasses**
  - Provide forage for bird nests, cover over winter, and places to raise young for beneficial insects.
- **Flowering perennials**
  - Provide food and cover for pollinators and insects.
- **Small woody shrubs**
  - Provide food and cover for beneficial insects and birds.
- **Small trees or large shrubs**
  - Provide food and cover for beneficial insects and birds.



Cover photo credits:  
*Rufus hummingbird* - Donna Johnson  
*Bumblebee and coneflowers* - Jeff Maslin  
*Eastern Bluebird* - Bob Zeller  
*Monarch butterfly* - Mary Windhorst

## 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](http://www.plaeinc.org/ECHO)