



HOFFLER CREEK WILDLIFE PRESERVE  
Portsmouth, Virginia

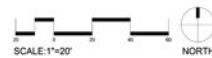
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**Kids in the Woods**  
Design Program

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Portsmouth, Virginia

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Design Program



*Prepared for:*

**Hoffer Creek Wildlife Foundation  
Portsmouth, VA**



*Prepared by:*

**The Natural Learning Initiative, NC State University**  
Robin Moore, Professor of Landscape Architecture, NLI Director  
Shweta Nanekar, Design Associate  
Sarah Werner, Design Assistant

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**Phyllis Bricker**

HCWF Board Secretary & Retired Health Services Supervisor,  
Portsmouth Schools

**Suzanne Burns**

Programs Director, HCWF

**Betty Casey**

Director, Ghent United Methodist Preschool

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Director of Program & Donor Services, Hampton Roads Community Foundation

**Brannon Godfrey**

Deputy City Manager, City of Portsmouth

**Alan Gollihue**

Director, Portsmouth General Hospital Foundation

**Bill Lowell**

Physician, Area Public Schools

**Mary Midyette**

Mentoring Program Supervisor, The UP Center

**Tim Michalski**

Portsmouth Museums

**Ashley Morgan**

Assistant Director, HCWF

**Phyllis Shannon**

Director, Christopher Academy

**Nick Sawyer**

Contractor, Green Builder

**Heather Smith**

STEM Teacher, Portsmouth Public Schools

**Randi Strutton**

Executive Director, HCWF

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Superintendent, Portsmouth Public Schools

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## Introduction

Located on the shores of Hoffer Creek, Hoffer Creek Wildlife Preserve (HCWP) is the last viable wilderness area in Portsmouth, Virginia. As a 142-acre sanctuary for urban wildlife, it contains four distinct habitats: a tidal creek and expansive salt marsh, a riparian forest of pines and hardwoods, a meadow of native wildflowers and grasses, and a manmade brackish “lake”. The preserve provides food and cover for an unusually diverse population of wildlife, including deer, foxes, river otters, crabs, oysters, and over 200 species of birds. Interpretive trails winding through each of the habitats introduce visitors to the ecological, economic, and social value of the plants and animals living at the mouth of the historic James River and Chesapeake Bay.

The not-for-profit Hoffer Creek Wildlife Foundation (HCWF) manages the preserve and focuses on restoration, conservation, preservation, habitat management, research and education. The HCWF staff identified various opportunities the preserve could offer to urban families as well as other formal and informal education groups. From these considerations grew the idea of the “Kids in the Woods” project.

***“The mission of Kids in the Woods is to foster the physical, mental, and spiritual health of children through interaction with nature in a safe and stimulating outdoor environment.”***

To assist with this task, the Natural Learning Initiative worked directly with the HCWF to develop the design program and translate the program requirements into a conceptual design. The aim of the project was to work with the staff, board members of the foundation, and the larger Portsmouth community in a participatory process to create opportunities for children ages 2-12 for free play, exploration, and discovery in nature.



Drawings by students of Christopher Academy show children's perceptions of nature, including trees and animals.

## Project Goals

The following project goals were established based on input from HCWF's staff and board members input and community stakeholders:

- **Create opportunities for free play** for children, ages 2-12, in Portsmouth.
- **Offer tools and settings** that encourage learning, exploration, imagination, and creativity through interaction with natural resources.
- Enrich the development of education and medical professionals seeking insights into **natural learning as a function of healthy child development.**
- **Provide opportunities for community service** by enlisting community volunteers to help build, interpret, and maintain the trails and facilities.

## Stakeholder Workshop

A stakeholder workshop was held on November 1, 2010, attended by a cross-section of interests and organizations as well as HCWF staff (listed under Acknowledgements).



*Stakeholder workshop*

## User Groups

During the stakeholder workshop, participants reviewed a range of current users of Hoffer Creek Wildlife Preserve and discussed additional user groups that will be attracted by the proposed “Kids in the Woods” project:

- Families
- Youth facilities and schools (YMCA, preschools, elementary schools, middle schools, home schools, etc.)
- Scout troops and other youth groups
- Educators
- Mentoring groups
- Youth rehabilitation groups
- Community volunteers of various ages and skills

## Design Program Objectives

Based on NLI's experience and existing site conditions, stakeholders' and community input, the following design program objectives were established:

- **Encourage exploration and discovery** by children at play pockets featuring activities that require little or no adult supervision.
- **Incorporate natural art and music** into play pockets.
- Build structures that prompt **physical exertion and agility**.
- **Host special programs** for children that interpret wildlife and impacts of human behavior on the environment.



*Design of natural settings can take many forms to encourage exploration and discovery and incorporation of art objects.*

## Play and Learning Pockets

The overall concept for “Kids in the Woods” project consists of installed play and learning pockets interconnected with a wooded trail. Children experience the natural wonder of the forest at Hoffer Creek from the ground up as they move through three themed play areas. Relying on their own physical ability, kids think naturally, question, create, contemplate, connect, and transcend.

Each area focuses on a zone of the forest and features several animals that inhabit that zone. Play equipment, interactive art, musical instruments, poetry, and seating are incorporated into all areas. Following are the play and learning pocket concepts that would encourage exploration and discovery for children ages 2-12:

### *Down on the Ground*

Children enter the forest and explore the area most accessible to them—the forest floor.

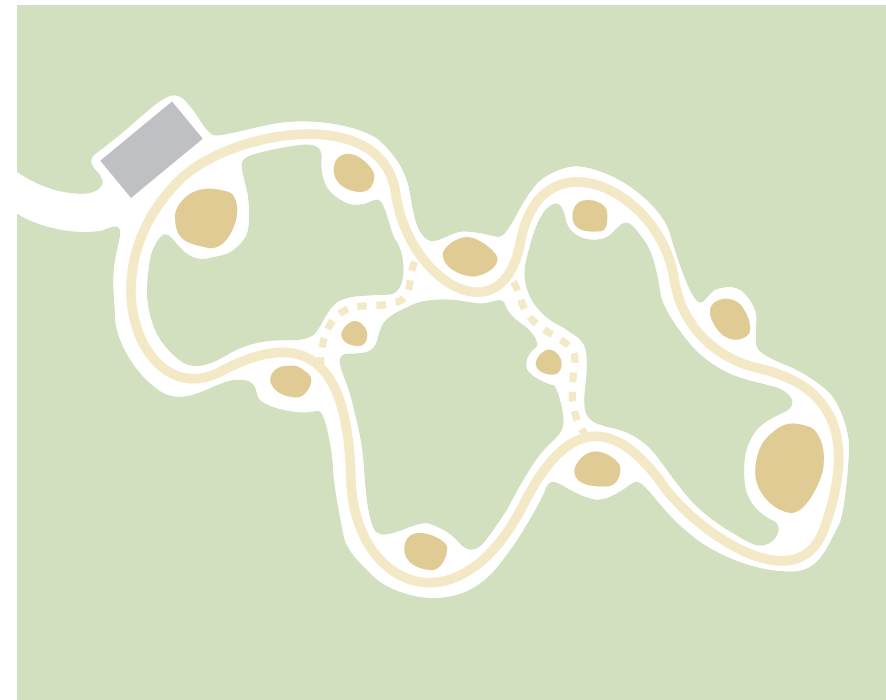
*Featured animals:* fox, groundhog, snake, turtle, rabbits

#### *Activities*

- Digging in the soil
- Sifting through the leaf litter
- Crawling through a tunnel
- Ducking into a den
- Participating in decomposition
- 

#### *Play and Learning Pockets*

1. Pathways
2. Gazebo
3. Dens and hideouts



*Conceptual diagram for Play and learning pockets (Adopted from [Pathways for Play](#), Playcore, 2010)*

4. Tunnels
5. Earth play
6. “Animal Inn” decomposing, exploration logs

### **Off in the Woods**

The furthest location from the entrance or exit, this area invites children to be explorers in an undiscovered land.

*Featured animals:* deer, owl, raccoon

#### *Activities*

- Building forts out of natural materials
- Daydreaming in the tree house
- Testing your camouflage ability in the tree posts
- Climbing, crawling or balancing on logs, stumps, and roots in the treenasium
- Gathering and sharing at the amphitheater

#### *Play and Learning Pockets*

1. Treenasium climbing logs
2. Natural construction
3. Tree posts
4. Amphitheater
5. Tree house

### **Up in the air**

From this perspective, children can experience the glory of trees and forest-layers.

*Featured animals:* squirrel, eagle, bat, woodpecker

#### *Activities*

- Climbing into an eagle’s nest
- Swinging on a rope
- Clambering up to the canopy platform
- Observing life in the treetops through telescopes
- Scaling the spider web
- Balancing on the rope bridges
- Hanging out and observing the sky from a hammock

#### *Play and Learning Pockets*

1. Spider web of ropes
2. Low ropes course
3. Lookout platforms in tree canopies
4. Hammocks
5. Birds’ nest

#### **Common Settings**

- Ephemeral art
- Animal sculptures
- Musical play
- Seating
- Poetry

## Down on the Ground

### Pathways

A hierarchy of pathways will be created as part of Kids in the Woods, to connect a series of play pockets. The main pathway is a broad, flowing looped path along which main play pocket settings are located. Secondary pathways intersect the main path creating smaller loops.

#### Character

- Natural, wild.
- Animal tracks along the route.
- Diversity of textures, colors and fragrances.
- Dappled shade.

#### Objectives

- Provide access to all play pockets.
- Engage children in exploring the woodland.
- Offer a comfortable environment for strolling, listening, and watching.



Pathways can take many forms.

### Tunnels

Tunnels constructed with natural materials like sticks, vines, and hollow logs provide opportunities for prospect and refuge. Especially for young children, tunnels provide an adventurous experience of being separated from parents, yet able to see them close by.

#### Character

- Custom-made with readily available natural materials like vines, sticks and wicker.

#### Objectives

- Provide prospect and refuge experience.
- Intrigue young children by providing experiences of walking under, walking through, etc., independent of parents.



Tunnels can be “made” (left) or “formed” (right).

## Dens and hideouts

Dens and hideouts provide interesting prospect and refuge spaces for kids. These are naturalized spaces of assorted sizes, encrusted with vines and other magical plants. These spaces range in size from accommodating one child, a child and an adult, to a group of small children.

Dens and hideouts can be created with overhanging tree limbs, brush piles, and fallen limbs covered with vines.

### Character

- Mysterious, child-scale, cozy.
- May have associated elements like play props and sculptures to encourage dramatic play.
- Provide small seating spaces inside using small tree stumps or rocks.

### Objectives

- Provide prospect and refuge spaces for kids.
- Encourage imagination in the woods.



*The many ways of creating dens and hideouts.*



## Earth play

Earth play is a specific area designed for digging and playing with soil, stones, and sticks. The digging area is equipped with play props such as shovels, buckets, and rakes.

### Character

- Rustic and naturalized, created with materials like boulders, rocks, and a good soil mix.

### Objectives

- Affords fine motor skills for young children like digging, molding, scooping, and using simple tools.
- Provides opportunities for imagination and creativity.
- Encourages children to become comfortable outdoors.



*Earth play*



## “Animal Inn” decomposing, exploration logs

Piles of fallen trees and branches provide opportunities for exploration of forest processes in which leaves, twigs, branches, and limbs fall to create a forest layer on the ground as a habitat for bugs, fungi, and animals. “Animal Inn” focuses on the value of dead, decaying and hollow trees and its importance for wildlife (<http://www.fs.fed.us/r6/nr/wildlife/animalinn/animalinn.htm>). A designated area is provided in the “Down on the Ground” zone for children to explore the ecology of decomposing vegetation.

### Character

Fallen tree logs and branches in various stages of decomposition arranged in a space that affords a range of conditions such as sunny spots, shady spots, a dry area, and a moist area.

### Objectives

- Explore various forest processes.
- Study habitats supported by decomposing vegetation.
- Investigate the reasons behind falling vegetation.
- Learn about “producer, consumer, and decomposer” species using science tools.



*Forest processes exploration*



*Life under a decomposing log*



## Off in the Woods

### Treenasium climbing logs

Treenasium is a play pocket with fallen tree logs, tree stumps, and large exposed rootballs. Children use the treenasium as a place for free play, jumping, hopping, and balancing on logs and tree stumps, or just as a place to hang out. Naturally fallen trees with interesting root ball composition provide an exciting opportunity to learn about forest processes, while cut stumps and logs provide structure. Care should be taken to anchor any loose branches as a safety precaution. Regular maintenance and replacement is recommended.

#### Character

- Readily available loose parts in the woods arranged to form a defined play pocket area.
- Real trees fallen as a result of aging or natural disasters.
- Cut stumps to provide structure.

#### Objectives

- Incorporating natural materials for free play and to encourage gross motor skills.
- Explore tree structures and forest processes including life cycle of a tree, soils, forest succession, decomposition, and habitat processes.



*Large tree trunk sections and stumps have multiple uses.*

## Natural construction

Natural construction provides opportunities for creativity, imagination and discovery in a natural setting. Readily available natural loose parts are used by children for construction.

### Character

- Cleared open space in the woods, abundant with natural loose materials suitable for construction.

### Objectives

- Encourage creativity by providing opportunities for construction.
- Encourage group play and social development among kids.
- Create programmed activities during summer camps, with local artists and sculptors.



*Natural construction using combinations of “natural loose parts.”*

## Amphitheater

A rustic, naturalized amphitheater for about thirty people to gather for special events and performances. An easily accessible storage space for materials and play props is provided. A variety of educational programming and animal presentations are held in this space.

### Character

Shady, informal seating in a natural setting to accommodate various group sizes.

### Objectives

- Opportunity for children to gather, socialize and hang out.
- Designated space for special events, including annual fundraising events.
- Facilitate dramatic play, and expressive activities by visitors.



*Naturalized, small amphitheater in the woods*

## Tree posts

A series of vertical tree posts set in the ground in a regular or random arrangement makes an interesting den or play space for games. The posts can be set at an angle, carved, have horizontal posts introduced or have tops angled for variation (UK Forestry Commission Report, <http://www.forestry.gov.uk/>)

### Character

- Rustic, custom-made, blend with the surrounding woods.

### Objectives

- Provide opportunity for children to camouflage themselves.
- Affords an interesting play space to play games like tag and hide and go seek.



*Playing in “the poles”*

Image Credit: UK Forestry Commission, <http://www.forestry.gov.uk/>

## Tree house

The tree house provides an opportunity for children to explore the woods and experience the forest canopy. A single structure or multiple tree houses can be provided, connected with a rope bridge or platforms, so that the kids can be in the woods without touching the ground.

### *Character*

- Timber construction, rustic, custom made.

### *Objectives*

- Experience forest canopy.
- Be in close contact with trees, above ground which provides a different perspective of the forest.
- Observe wildlife up close in tree canopy.



*Types of treehouses*

## Up in the air

### Low ropes course

Ropes can be used to create versatile settings such as obstacle course, spider web or low ropes course. Such settings afford challenging physical activity for children. An appropriate use zone should be created around the setting based on the height of the structure.

#### Character

Custom made ropes courses in the cleared woods with clearly marked age appropriateness.

#### Objectives

- Affords a multitude of physical activity and gross motor skills.
- Promotes social skills and team work.



Ropes courses

## Bird's nest

The large scale bird's nest is constructed from sticks and bendable vines. Care should be taken to build it strong enough for a few children to play together inside. Built with sticks, the nest is a seasonal play pocket. Each year, construction can be a programmed activity with children.

### *Character*

Rustic, made with readily available loose parts.

### *Objectives*

- Incorporating sculpture opportunities constructed with natural loose materials.
- Opportunity for kids to be “inside” a bird's world to encourage imagination and pretend play.



*Bird's nest*

## Hammocks

Low hanging hammocks are placed in the woods, suspended between trees, along the sub-loops of the main trail.

### *Character*

Peaceful and calming experience in close contact with nature.

### *Objectives*

- Provide an opportunity for users to relax and experience nature.
- Teenagers hanging out in space.



*Hammocks*

## Common Settings

### Ephemeral art

The Kids in the Woods project provides an exceptional opportunity for Portsmouth artists to explore unique environmental art projects with children. Ephemeral art offers a regular programmed activity for members of Hoffer Creek Nature Preserve and a unique fund-raising opportunity.

#### Character

Unique environmental art as a temporary installation, interactive and exploratory for children.

#### Objectives

- Provide an opportunity for children to learn about environmental art, transiency, and life cycle of natural materials.
- Quiet exploration for children.
- Discovery and repose.



*A multitude of ephemeral art projects can be implemented.*



## Animal sculptures

Animals from each zone are featured as life-size and over-sized sculptures. Local sculptors and artists can be involved in creating these interactive pieces. Adjacent play props encourage pretend play.

### *Character*

Suitable material that can withstand extreme weather conditions, permanently anchored in ground and safe for children to climb on.

### *Objectives*

- Investigate and learn about various animals and their habitat.
- Use as play settings.



*Animal sculptures*



## Musical play

Musical instruments are located throughout Kids in the Woods as interactive play settings and opportunities for art expression. Drums, xylophones, and large scale chimes are incorporated as part of play and learning pockets and produce a beautiful “sound scape.” Structured programs can be arranged for outdoor music lessons.

### *Character*

Unique interactive art that promotes exploration of various instruments, their notes, and acoustic qualities.

### *Objectives*

- Provide an opportunity for children to explore music outdoors.



### *Examples of music play*

Image Credit: Grounds for Play, <http://www.groundsforplay.com/content/music-curricula>



## Seating

Seating opportunities using natural materials are provided throughout the site along the main pathway adjacent to each play and learning pocket. The seating is of various sizes to accommodate individuals and groups.

### *Character*

Rustic, custom-made benches, tree stumps arranged in a circle for group activity.

### *Objectives*

- Provide an opportunity for resting and social interaction for children and adults.



*Examples of natural seating*



## Programmed activities

Various structured programs are arranged for groups of children to learn more about forests, wildlife habitats, bird watching, nature exploration, arts, music, and poetry. Local experts in various fields are encouraged to spend time with kids as part of programmed activity.

### *Character*

Open-ended activities that use one or more play and learning pockets to help children explore nature to the fullest.

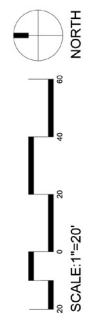
### *Objectives*

- Provide an opportunity for children to interact with and learn from experts.
- Help children explore their interests.

## Summary

This design program supplements the Kids in the Woods conceptual design. The play and learning pockets shown in the conceptual design are described in detail. The play pockets support structured and non-structured play and encourage exploration and discovery by children in a naturalized setting. Opportunities for interactive natural art and music are created throughout the site. In summary, the Kids in the Woods project offers diverse opportunities for user groups to interact with nature, stimulates children's sense of wonder, and promotes stewardship of the land.

Next steps for the project include a ground survey of the site and creation of detailed designs to guide the implementation of the project.



**Kids in the Woods**  
 Hoffer Creek Wildlife Foundation, Portsmouth, VA  
**Conceptual Masterplan**



**Kids in the Woods**

Hoffler Creek Wildlife Preserve, Portsmouth, VA