

## BLUE JAY POINT COUNTY PARK

# Family Discovery Box List

Did you know, the Blue Jay Center for Environmental Education checks out 1,000 Discovery Boxes a year?! Discovery Boxes are available at the Blue Jay Center, by reservation, Monday through Saturday, from 8am – 5pm for use within the park. You **must** call or email the park to reserve a Discovery Box—please be sure to wait for a response from our staff before coming to the park, as another group may have requested your desired box.

Each Discovery Box contains all required materials and equipment, including an Activity Guide containing necessary background information for a hands-on, site-specific activity. **Jr. Discovery Boxes** contain activities that are especially appropriate for children in grades PreK-2. Jr. Discovery Boxes are indicated by a ●.

While a few Discovery Boxes can be used with virtually no advance leader preparation, most boxes are best previewed ahead of time so that you can become familiar with the activity. Though most Discovery Boxes were originally designed for use by 5<sup>th</sup> grade classes, Blue Jay's education staff can help you adapt many activities for small groups and for families with children of varying ages.

Call (919) 870-4330 or e-mail [bluejaypoint@co.wake.nc.us](mailto:bluejaypoint@co.wake.nc.us) to preview and/or reserve Discovery Boxes.

## 1. Plants

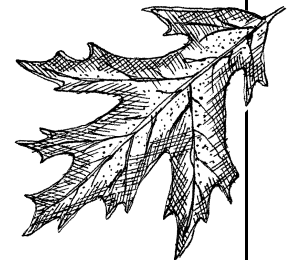
### GROW A TREE ●

**Length:** 20 minutes

**Source:**

**Area:** Indoors or Outdoors – seated

**Summary:** Reinforce what plants need to live and grow (air, sun, water, & soil) in a sit-down game.



### KEYING OUT TREES

**Length:** 1 – 1½ hours

**Source:** *Naturescope*

**Area:** Indoors or Outdoors – seated

**Summary:** “Key out” people according to their physical features, then use the same technique to ID leaves.

### MEET A TREE ●

**Length:** 20 – 30 minutes

**Source:** J. Cornell

**Area:** Outdoors – forest setting

**Summary:** Use the sense of touch to discover and recognize a tree by its bark texture and other trunk features.

### MY TREE

**Length:** 1 hour

**Source:** Blue Jay Point staff

**Area:** Outdoors - forest setting

**Summary:** Use a tree key to learn about an individual tree. Make observations about forest layers & diversity.

### SEED BINGO

**Length:** 30 minutes

**Source:** Kelley Stanton

**Area:** Outside in “seedy” locations

**Summary:** Play bingo as you search for and identify 8 different types of seed locomotion/travel. Guess which seed you think will make it the farthest.

### TERRIFIC TREES ●

**Length:** 1 hour

**Source:** Blue Jay Point Staff

**Area:** Anywhere

**Summary:** Use the series of labeled, laminated leaf cards for a family group matching activity. The cards can then be used as an identifying guide to leaves on a tree hike.

## 2. Animals

### BEAVERS OF BLUE JAY

**Length:** 30 – 45 minutes plus hike time

**Source:** Blue Jay Point staff

**Area:** Anywhere

**Summary:** Learn about this fascinating mammal that calls Blue Jay Point home. Handle a beaver pelt and beaver chew sticks. If time allows (1 hour needed), take a hike to look for beaver signs at the lake shore—as Blue Jay staff for tips on locations.

**\*\* Call (919) 870-4330 to reserve boxes \*\***

## BIRD BEHAVIOR BINGO

**Length:** 30 minutes

**Source:** *Naturescope*

**Area:** Outdoors - wherever you can see birds!

**Summary:** Observe birds in their habitat and understand why they behave as they do. A bingo game helps reinforce identification of the behaviors.

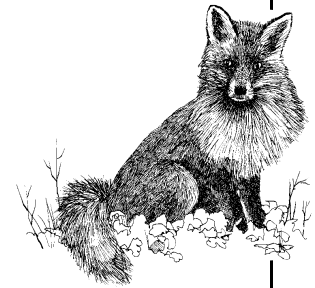
## MAMMAL SAFARI

**Length:** 1 hour

**Source:** *Naturescope*

**Area:** Outdoors - forest, field

**Summary:** Hike to investigate burrows, dens, nests, rubbings, snips & chews, scat & tracks, etc. as clues to mammals and other wildlife.



## REPTILE RELATIVES

**Length:** 30 - 45 minutes

**Source:** Sea Turtle Trek EELE and Laura Copeland

**Area:** Indoors or Outdoors

**Summary:** Become familiar with the adaptations, anatomy, and natural history of a sea turtle and a terrestrial turtle. Learn how certain adaptations make them well-suited for the habitats they live in and why the sea turtle is endangered and the Eastern box turtle is not.

## SCALES-N-TALES

**Length:** 1 hour or more

**Source:** adapted from a lesson plan by Helen Eagleson and NC CATCH

**Area:** Lakefront (Sandy Point works well)

**Summary:** Use this box to complement a fishing experience. Participants will learn to recognize the parts of a fish, identify some species of local fish, record and evaluate scientific data based on using different kinds of organic bait. Develop language and writing skills by describing the event of catching a fish and concocting a "fish story." *You must provide your own fishing gear and bait. All NC Fishing regulations apply.*

## 3. Invertebrates

### BUG BINGO ●

**Length:** 30 minutes – 1 hour

**Source:** *Naturescope*

**Area:** Outdoors

**Summary:** Introduce insect habitats and look at the ways insects find food, water, shelter, and a place to lay their eggs. Test abilities to spot insects and habitats with a bingo game on a hike or as a sit-down game with clues.

### CAMO-CREEPERS ●

**Length:** 30 minutes

**Source:** Project WILD

**Area:** Outdoors – meadow, wooded trail, parking lot margins

**Summary:** Learn about the concept of camouflage—of both predator and prey—while hunting for pipe cleaner "walking sticks."

### HOPPER HERDING

**Length:** 1 hour

**Source:** OBIS and Kristin Arnebold

**Area:** Outdoors – tall grass field; Indoors – seated

**Summary:** Discuss what makes an insect an insect. Look for insects in their natural habitat and round up a herd of hopping insects (grasshoppers, katydids, and crickets) using sweep nets to find out how many different kids live around Blue Jay Point. For a rainy day activity, unscramble a grasshopper picture and label its parts.

### ORDERING INSECTS

**Length:** 1 hour

**Source:** Stephanie Avett

**Area:** Indoors or Outdoors – seated

**Summary:** Discover how scientists categorize living things. Students use pictures and models to figure out the characteristics common to their order of insects and create their own insect that fits into their order. Several orders of insects are introduced (Coleoptera, Hemiptera, Odonata, Hymenoptera, and Orthoptera).

### SPIDER SENSATIONS ●

**Length:** 15 minutes

**Source:** *Hands-On Nature*

**Area:** Anywhere

**Summary:** Taking on the role of a spider, play a simple game to learn how web-spinning spiders know by touch, rather than sight, when they've captured their prey.

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## WEB IT!

**Length:** 30 minutes

**Source:** OBIS

**Area:** Outdoors - spider habitat

**Summary:** With the aid of spray mists, investigate the adaptations and behavior of spiders.

## WHIRLIGIGS 'N WATER BUGS

**Length:** 45 minutes

**Source:** Blue Jay Point Staff

**Area:** Outdoors - Blue Jay Point's Garden Pond

**Summary:** Dip a net into the Blue Jay pond and get the real scoop on what types of life inhabit its waters.

## 4. Ecology

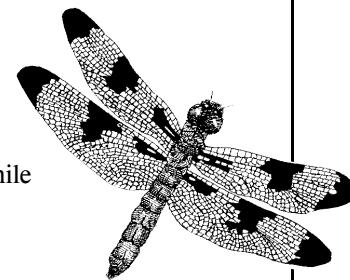
### AM I A BIRD?

**Length:** 15 - 30 minutes

**Source:** Leigh Scott-Prater

**Area:** Anywhere

**Summary:** Develop language skills and encourage interaction between students, all while increasing awareness of the wild animals that might be living in our backyards.



### DRAGONFLY POND

**Length:** 2 hours

**Source:** Aquatic Project WILD

**Area:** Indoors

**Summary:** Learn to evaluate the effects of different land uses on wetlands. This activity requires group decision-making on how to minimize any damaging effects on wetlands during development.

### LOOK WHAT'S AT YOUR FEET!

**Length:** 1 hour and 1 overnight

**Source:** *Hands-On Nature*, *Nature Naturally*, and Kristin Arnebold

**Area:** Outdoors

**Summary:** Observe the forest floor and fallen logs to gain insight into wildlife rarely thought of or seen. To practice observation skills, students pick a spot on the forest floor and collect information from it.

### MIND'S EYE, THE

**Length:** 30 minutes

**Source:** Kelley Stanton

**Area:** Anywhere

**Summary:** Work on descriptive language skills while examining objects found in nature. Participant describes what an object looks like while their partner guesses what it is.

### MY CHANGING NEIGHBORHOOD

**Length:** 30 minutes

**Source:** *Where Have All the Birds Gone*, by John Terborg

**Area:** Indoors or Outdoors - seated

**Summary:** Introduce habitat loss with this feltboard activity and story that demonstrates the changes in wildlife, particularly songbirds, in a neighborhood over a period of years as development encroaches.

### PICTURE THIS

**Length:** 30 - 60 minutes

**Source:** Kelley Stanton

**Area:** Anywhere

**Summary:** Develop language and listening skills with this challenging, but quiet activity. A simple line drawing of a natural object is described as a partner tries to reproduce the drawing.

### SOCK IT TO ME ●

**Length:** 30 - 45 minutes

**Source:** Kelley Stanton

**Area:** Anywhere

**Summary:** Participants test their sense of touch by reaching into a "mystery sock" and trying to guess what it contains. Students can also work on their descriptive language skills by describing what their mystery object feels like to find their match among fellow participants.

### WETLAND METAPHORS

**Length:** 30 minutes

**Source:** Aquatic Project WILD

**Area:** Indoors or Outdoors - seated

**Summary:** Citizens of our rapidly changing world should understand the benefits of wetlands as resources for humans and other species. By matching metaphoric objects and pictures to written wetland functions, this activity brings those benefits to life and encourages a new appreciation for the many important roles of wetlands

## WOODLAND BINGO ●

**Length:** 30 minutes – 1 hour      **Source:** D’Nise Hefner  
**Area:** Anywhere  
**Summary:** Play bingo as a focused nature hike or a sit-down game with clues.

## 5. Environmental Studies

### DON’T GET WASTED

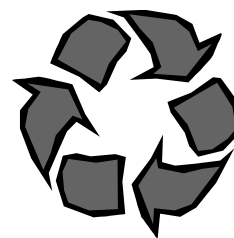
**Length:** 30 – 45 minutes      **Source:** Blue Jay Point Staff  
**Area:** Anywhere  
**Summary:** Encourage interaction between students, while increasing awareness of how we can avoid sending waste to the landfill with this recycling icebreaker.

### EARTH BUDDIES ●

**Length:** 1 hour      **Source:** Parts adapted from *Naturescope*  
**Area:** Anywhere  
**Summary:** Encourage the development of an environmental ethic with these 3 separate, short activities. These activities focus on things that are good or harmful for the Earth; creative thinking about reusing an everyday object, and comparing the “environmentally green” components of bagged lunches.

### ETHI-REASONING

**Length:** 1 hour      **Source:** Adapted from Project WILD  
**Area:** Indoors or Outdoors – seated  
**Summary:** Students use critical thinking skills to evaluate situations that require ethical decisions.



### EYE SPY ●

**Length:** 30 minutes      **Source:** Kat Bukowy  
**Area:** Blue Jay Center for Environmental Education  
**Summary:** Students will increase their skills of observation in this visual indoor scavenger hunt. Most appropriate for younger audiences and students with reading/language differences.

### INDOOR SCAVENGER HUNT

**Length:** 20 – 40 minutes      **Source:** Blue Jay Point Staff  
**Area:** Blue Jay Center  
**Summary:** Team up to compete in an indoor scavenger hunt through the Blue Jay Center exhibits with this great rainy/hot/cold day activity! Water quality, current environmental issues, habitat types, and more will keep you busy as you search for elusive answers! Following activity, discuss as a class!

## 6. Earth Science

### BIG SWEEP

**Length:** 1 hour and up      **Source:** Keep America Beautiful  
**Area:** Outdoors – Upper Barton fishing area, Lower Barton Bridge areas, (these areas require car access – can hike back to Center or Lodge if desired – approx. 1¼ mile hike), BJP lakeshore in dry weather  
**Summary:** Help out wildlife habitat and improve water quality by donning rubber gloves and picking up trash along the Falls Lake shore. Wear closed-toe shoes!!

### DISCOVER OUR ECOLOGICAL ADDRESS

**Length:** 30 min. – 2 hours      **Source:** Adapted from Project WET and NC Office of EE website  
**Area:** Outdoors  
**Summary:** This box contains multiple activities, each lasting approximately 30 minutes. **Water Drop Match:** Where does the water go when it rains? Learn what a river basin is as you discover Blue Jay Point’s river basin and what makes it special (this particular activity could be done inside). The following activities use Blue Jay’s giant N.C. river basin map. **River Basin Riddler Relay:** This action-packed, trivia-based fact game promotes participant learning about N.C.’s 17 river basins (best for class-size groups). **River Basin Hopscotch:** Participants label the 17 N.C. river basins and increase their fitness by “hopscotching” across the map while practicing the basins’ locations (great for small groups!). **Map Makers:** Using the provided information, participants label geological features, cities, etc. on the giant map with sidewalk chalk. Participants draw in the major rivers and tributaries, then trace how the water flows in the basins.

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### DISCOVERING DROUGHT

**Length:** 1 - 2 hours

**Source:** Adapted from Project WET *Discovering Drought* publication

**Area:** Indoors

**Summary:** How can there be drought in a rainforest—or in a desert? What exactly is a drought? Learn these answers and more, such as droughts around the world, predicting and planning for droughts and dendrochronology (history and life of a tree).

### MINERAL MADNESS

**Length:** 1 - 2 hours

**Source:** Various sources

**Area:** Indoors or Outdoors - seated

**Summary:** Investigate some of the properties of minerals. Learn to identify several common minerals through scientific observation and experimentation.

