

## Earth Explorers At White Clay Creek State Park

Alternating Wednesdays and Thursdays

Please note: Park Entrance fees are in effect from March 1 through November 30

Resident \$3 per day, \$27 per year

Non-resident \$6 per day, \$54 per year

Registration is currently being accepted for programs through May.

Registration and payment must be received by the Park Office no later than noon on the Friday before the program.

Discounts are available for multiple classes.

### How Healthy is Our Creek?

#### Thursday, September 24, 2009

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

We can tell if our creek is healthy using chemical tests and by searching for macro invertebrate “bio-indicators.” *testing hypotheses, insect identification*

### Plant Safari and Leaf Printing

#### Wednesday, September 30, 2009

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Fall is here and what a great time to explore the Plant Kingdom! Students will study leaf, seed and structures to learn the basics of botanical classification and then make beautiful leaf prints to take home. Meet at Carpenter recreation area on Route 896. *botany, plant ID and classification*

### Apple Cidering

#### Thursday, October 8, 2009

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Cider has played an important role in the history of our nation. Learn about local apple-pressing mills and then use the Nature Center’s cider press to understand how this delicious beverage is made. Afterwards we’ll enjoy a fresh glass of cider and a snack. Materials fee \$1 *local history and culture.*

### New Format! Habitats and Seasons Part I: Plants and Animals in Autumn

#### Wednesday, October 14, 2009

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

The first in a 3-part series that explores different habitats—Meadow, Stream, and Forest. Students should bring a blank journal or notebook to record similarities and differences of these ecosystems focusing on native plants and animals. Naturalists will share photos and data by email to add to your journal at home. *ecology, data collection, seasonal studies*

## Alien Invaders?

**Thursday, October 22, 2009**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

What are “invasive” species and how do they impact our natural areas? Let’s hike the trails to note how these plant species spread over many areas of the park. *current environmental issues, plant identification*

## Sensational Spiders

**Wednesday, October 28, 2009**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

The more you learn about them and their habits, the more you’ll appreciate these fascinating and helpful creatures. Let’s meet a few up close and study their adaptations and web-making techniques. Then we’ll hunt to find as many spiders as we can---there’s more than you can imagine. *observation, adaptations*

## Delaware’s Arc: Where, When and Why

**Thursday, November 5, 2009**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Let’s learn about Delaware, Pennsylvania and Maryland’s oddly-shaped mutual border while hiking to a monument marking our circular boundary. *local history, surveying, mapping*

## Treasure Hunt/Orienteering

**Wednesday, November 11, 2009**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

In honor of Robert Louis Stevenson’s birthday (November 13), we will go in search of “treasure” and learn about orienteering in the process. In groups, we’ll use maps and compasses to set a course to find treasure in the Carpenter Recreation Area. Meet at the Carpenter Recreation Area off Rt. 896. *maps, compass skills, math*

## Dissection/Microscope Lab: Owl Pellets

**Thursday, November 19, 2009**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Just what did that owl eat? We will dissect owl pellets (undigested fur and bone materials) and use dissecting microscopes to get a closer view. Then we’ll try to put together the pieces to solve the puzzle. Lab fee \$2. *dissection and microscopes*

### **Astronomy: Blue Moons, Phases and Eclipses, Oh My....**

**December 3, 2009**

Junior Earth Explorers    6 – 9 years                      1 – 2 p.m.                      \$4 per student

Senior Earth Explorers    9 – 15 years                      2:30 – 4 p.m.                      \$5 per student

Earth's natural satellite is the largest object in our night sky. We'll learn about this month's blue moon, moon phases, lunar eclipses and more. Using maps, telescopes and binoculars we'll simulate the best way to explore the moon while on earth. *astronomy, telescopes, maps*

### **Nature Crafts Annual Workshop**

**Thursday, December 9, 2009**

Junior Earth Explorers    6 – 9 years                      1 – 2 p.m.                      \$4 per student

Senior Earth Explorers    9 – 15 years                      2:30 – 4 p.m.                      \$5 per student

Using natural materials and more we will create decorative crafts, including gnomes, to brighten our homes. Materials fee: \$1

### **Nature Crafts Annual Workshop – Day 2**

**Wednesday, December 10, 2009**

Junior Earth Explorers    6 – 9 years                      1 – 2 p.m.                      \$4 per student

Senior Earth Explorers    9 – 15 years                      2:30 – 4 p.m.                      \$5 per student

Using natural materials and more we will create decorative crafts, including gnomes, to brighten our homes. Materials fee: \$1

### **Birding Part I: Backyard Visitors**

**Thursday, January 6, 2010**

Junior Earth Explorers    6 – 9 years                      1 – 2 p.m.                      \$4 per student

Senior Earth Explorers    9 – 15 years                      2:30 – 4 p.m.                      \$5 per student

Join us for a lesson in basic backyard birding. Learn to identify just who overwinters in and near your yard and what they need to survive.  
*identification/classification*

### **Benjamin Franklin's Birthday Party! Electrifying Experiments: Focus on fun and safety!**

**Wednesday, January 14, 2010**

Junior Earth Explorers    6 – 9 years                      1 – 2 p.m.                      \$4 per student

Senior Earth Explorers    9 – 15 years                      2:30 – 4 p.m.                      \$5 per student

To honor our famous inventor born January 17, we'll learn about lightening, magnets and lots more in this electromagnetic lab. Materials fee \$1

### **New Format! Habitats and Seasons Part II: Winter Survival**

Thursday, January 20, 2010

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Second in our 3-part series to explore three habitats—Meadow, Stream, and Forest. Students should bring a blank journal or notebook to record similarities and differences of these ecosystems focusing on how animals and plants survive in winter. Naturalists will share photos and data by email to add to your journal at home. *ecology, data collection, seasonal studies*

### **Dissection and Micro Lab: Funky Fungi**

Wednesday, January 28, 2010

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Not plants...just what are they and what role do they play in our environment? We'll examine the exotic and sometimes funny world of fungi and mushrooms using dissecting tools and 2 kinds of microscopes. Materials fee: \$2.  
*dissection/microscopes/classification*

### **Working with Animals: Wildlife Rehabilitation**

Thursday, February 3, 2010

Junior Earth Explorers	6 – 9 years	1 – 2:30 p.m.	\$6 per student
Senior Earth Explorers	9 – 15 years	1 – 2:30 p.m.	\$6 per student

For anyone who's ever wondered what to do with an injured wild animal or considered working with animals we will meet Wildlife Rehabilitator, Hilary Taylor. From baby bats to injured turtles she has come to the rescue for mammals and reptiles in Northern Delaware for many years. \*Both classes meet from 1– 2:30 for a lively talk and discussion and then a mini workshop to create a wildlife survival feeder or abode.

### **Weather or Not? Cloud Study**

Wednesday, February 11, 2010

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Learn to “read the sky” by recognizing various cloud types and formations as weather indicators. Then use watercolors to paint some of your own. Materials fee \$1. *meteorology, art*

### **Batty About Bats Order: Chiroptera...**

**Thursday, February 17, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Often grossly misunderstood, bats are exceptional mammals that play an important role in ecosystems all over the world. We'll separate fact from fiction and learn about the ones that live in our area. Instructions to construct your own "bat house" will be available. *ecology, adaptations*

### **Micro Lab: Animal Parts**

**Wednesday, February 25, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Turning the lens on the world of animals we'll examine fur, skin, scales and feathers using dissecting microscopes to learn the secrets of their function in the animal's survival. Lab fee: \$1. *microscopes, adaptations*

### **Maple Syrup**

**Thursday, March 3, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

It's "sugarin'" time up north. Learn about native lore, history, tools and techniques for collecting tree sap to make this delicious treat. Then, let's warm up some flapjacks and sample some of the real thing! Material fee \$2. *plant physiology, cultural history, snack*

### **Whitetail Deer: Behavior and Populations**

**Wednesday, March 11, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

The largest mammal in our area is not as elusive as it once was. Park Ranger Art Angelo will lead this multimedia lesson on the habits and behavior of these creatures and the impact that humans have on their population. *adaptation, populations*

### **Composting & Decomposition**

**Thursday, March 17, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Did you know that worms and other soil organisms are the earth's most reliable recyclers? Learn about worm composting at the Nature center. Discover how leaves and other organic debris get changed into soil? *food chains, life cycles*

### Microscope Studies: Life in a Drop of Water

**Wednesday, March 25, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Learning to use a microscope requires careful observation and patience. Enter the micro world in a drop of pond water to practice our skills of observation and record what we see. Lab fee \$1. *micro skills, biology*

### WWII Children on the Home Front

**Thursday, March 31, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2:30 p.m.	\$7 per student
Senior Earth Explorers	9 – 15 years	1 – 2:30 p.m.	\$7 per student

Journey back to 1942 when support for the war effort influenced almost every aspect of daily life. Children played an important role in the march toward “Victory.” At the Judge Morris Estate we’ll practice rationing, baking and games children played during this difficult yet exciting time in our history. \*Both classes meet from 1– 2:30 p.m. *history, baking, rationing*

### Working with Animals: Comp’animals Pet Rescue

**Wednesday, April 8, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2:30 p.m.	\$6 per student
Senior Earth Explorers	9 – 15 years	1 – 2:30 p.m.	\$6 per student

Love pets? Enjoy working with animals? Meet members (people and pets) of this volunteer organization who rescue abandoned and unwanted animals in our communities. \*Both classes meet from 1– 2:30 p.m. for a lively talk and discussion, followed by a mini workshop on how this program works.

### New format! Habitats and Seasons Part III:–Signs of Spring

**Thursday, April 14, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Last in our 3-part series to explore three habitats. Students should bring a blank journal or notebook to record similarities and differences of these ecosystems focusing on signs of spring and new life. Naturalist will share photos and data by email to add to your journal at home. *ecology, data collection, seasonal studies*

### Wildflower and Early Spring Plant ID

**Wednesday, April 22, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student

Spring is in bloom. Using key guides we’ll learn how to identify some of the large variety of wildflower and other early spring plants along our woodland trails. *botany, observation and identification*

## Birding Part II : Neo-Tropicals in Migration

**Thursday, April 28, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
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Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student
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White Clay is an exciting place to observe migratory birds heading north from as far away as South America. Learn tips to bird identification: both visual clues and songs. Includes a lesson on using binoculars for birding. Bring your own or use ours. *identification, observation*

## The Third Annual White Clay Creek Flotilla

**Wednesday, May 6, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
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Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student
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Using simple materials, we'll design small vessels with attention to stability and speed to float and carry cargo on the river. We will reserve time at the end for a grand parade of "ships." Wear water shoes or old sneakers and bring a towel for the ride home. Materials fee: \$1. *design, physics, creativity, fun!*

## Floats and Weights

**Thursday, May 12, 2010**

Junior Earth Explorers	6 – 9 years	1 – 2 p.m.	\$4 per student
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Senior Earth Explorers	9 – 15 years	2:30 – 4 p.m.	\$5 per student
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How much water is in the White Clay Creek? Join Park Ranger John Wales IN the creek for a fun experiment to take measurements and calculate the flow rates at this time of year. Come prepared to get wet! We recommend water-shoes or old sneakers and a change of clothes or towel for the ride home. *gathering data, interpretation, math*