



Lake Crabtree County Park

Program Guide for Classroom Teachers

Hello! This is Lake Crabtree County Park's Educator Guide for the 2014-2015 school year. This guide is intended for classroom teachers interested in scheduling either onsite or outreach programming with the park.

The following chart is organized by grade level, with two staff recommendations for each grade level, as well as a brief program description and a list of the NC DPI Essential Standards for Science that are met by the program. These, of course, are only recommendations, and any of our programs or program topics may be tailored to suit your group's needs. For a full listing of our program offerings, please visit our website and check out our [Group Program List](#). If you have questions about a program topic that is not listed, please ask our staff – we will do our best to accommodate your group. If you are interested, we also have a full listing of every Standard each of our programs aligns to. It may be found [here](#).

To schedule a program, or for more information, contact the Assistant Park Manager of Programs, Colleen Bockhahn at 919-460-2723 or colleen.bockhahn@wakegov.com or the Park Technician of Programs at 919-460-3355. Most programs given on-site are \$25/hour per staff member (fishing and canoe programs are \$40/hour per staff member). Outreach programs are \$40/hour per staff member for the first hour, and \$25/hour per staff member for every following hour (provided each hour is on the same program topic). For full details regarding our onsite and outreach policies, please consult our [Field Trip Protocols](#).



Lake Crabtree County Park
1400 Aviation Parkway
Morrisville, NC 27560

wakegov.com/parks/lakecrabtree/Pages/programs.aspx

Grade Level	Recommended Programs	NC DPI Essential Science Standards Met
K	<p><i>Using Your Senses</i></p> <p>Learn how animals use the five senses by playing games like "The Nose Knows" and "Do You Hear What I Hear?", or become a Nature Detective and use your senses to find animal clues.</p>	<p><i>K.P.1</i> Understand the positions and motions of objects and organisms observed in the environment.</p> <p><i>K.P.2</i> Understand how objects are described based on their physical properties and how they are used.</p>
K	<p><i>Animals of Lake Crabtree</i></p> <p>Learn about predators, prey, adaptations, and habitat by looking at taxidermy animals and other items.</p>	<p><i>K.L.1</i> Compare characteristics of animals that make them alike and different from other animals and nonliving things.</p>
1	<p><i>Funky Frogs</i></p> <p>Learn the life cycle of frogs and toads and the differences between the two. Other options include learning some common frog calls and looking for treefrogs in our monitoring area.</p>	<p><i>1.L.1</i> Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive.</p> <p><i>1.L.2</i> Summarize the needs of living organisms for energy and growth.</p>
1	<p><i>Animal Trackers</i></p> <p>Learn how to "read" the footprints and other signs that animals leave behind. Several options for activities including a hike, making track casts, and other hands-on activities.</p>	<p><i>1.L.1</i> Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive.</p>
2	<p><i>Weather Wonders</i></p> <p>Participants will become meteorologists and learn the tools that are used to predict the weather. Activities include cloud identification, making a cloud in a bottle, reading a weather map, and more.</p>	<p><i>2.E.1</i> Understand patterns of weather and factors that affect weather.</p>
2	<p><i>Reptiles and Amphibians</i></p> <p>We will compare and contrast the animals that belong to these two groups, and learn about some of the reptiles and amphibians that live at Lake Crabtree.</p>	<p><i>2.L.1</i> Understand animal life cycles.</p> <p><i>2.L.2</i> Remember that organisms differ from or are similar to their parents based on the characteristics of the organism.</p>
3	<p><i>Flower Power</i></p> <p>Students will learn flower parts and look at real flowers (seasonal). We will also discuss methods of seed dispersal and pollination.</p>	<p><i>3.L.2</i> Understand how plants survive in their environments.</p>
3	<p><i>Trees</i></p> <p>Choose one or more topics from the following: Goods from the Woods, tree cookies, tree life cycle, tree ID, and more. We have several different hands-on activities and games for your group to learn more about trees.</p>	<p><i>3.L.2</i> Understand how plants survive in their environments.</p>

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4	<p><i>Owl Pellets</i></p> <p>You can learn a lot from an owl pellet! Students will dissect owl pellets and try to identify what they find inside. We'll also talk about the food web and adaptations of our local owl species.</p>	<p>4.L.1 Understand the effects of environmental changes, adaptations and behaviors that enable animals (including humans) to survive in changing habitats.</p>
4	<p><i>Insect Investigations</i></p> <p>Learn what makes an insect an insect. We'll talk about metamorphosis, body parts, and the important role insects play in our ecosystem. Additional topics include beneficial/harmful insects, methods of collection and identification and much more!</p>	<p>4.L.1 Understand the effects of environmental changes, adaptations and behaviors that enable animals (including humans) to survive in changing habitats.</p>
5	<p><i>Composting and Decomposers</i></p> <p>Discover the benefits of composting and learn what happens in a worm bin (basic vermiculture). Learn the important role decomposers play in our ecosystem by investigating a rotten log.</p>	<p>5.L.2 Understand the interdependence of plants and animals with their ecosystem.</p>
5	<p><i>Habitats and Biomes</i></p> <p>What are the four components of habitat that every animal needs? What is a biome? Explore the various habitats of Lake Crabtree and the plants and animals that call them home.</p>	<p>5.L.2 Understand the interdependence of plants and animals with their ecosystem.</p>
6	<p><i>Rocks In Your Head</i></p> <p>Discover the many ways you use rocks and minerals every day. Learn how to identify different types of rocks and minerals, how the rock cycle works, and how to use a dichotomous key.</p>	<p>6.E.2 Understand the structure of the earth and how interactions of constructive and destructive forces have resulted in changes in the surface of the Earth over time and the effects of the lithosphere on humans.</p>
6	<p><i>Astronomy</i></p> <p>You don't need a night sky to learn about the universe! Discover interesting facts about our planets and solar system through hands-on activities.</p>	<p>6.E.1 Understand the earth/moon/sun system, and the properties, structures, and predictable motions of celestial bodies in the Universe.</p>

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7	<p><i>Weather Wonders</i></p> <p>Participants will become meteorologists and learn the tools that are used to predict the weather. Activities include cloud identification, making a cloud in a bottle, reading a weather map, and more.</p>	<p>7.E.1 Understand how the cycling of matter (water and gases) in and out of the atmosphere relates to Earth's atmosphere, weather and climate and the effects of the atmosphere on humans.</p>
7	<p><i>Plants and Animals to Watch Out For</i></p> <p>Learn how to identify the copperhead, black widow, brown recluse, and poison ivy. Distinguish between the facts and myths surrounding poisonous and venomous plants and animals.</p>	<p>7.L.1 Understand the processes, structures and functions of living organisms that enable them to survive, reproduce and carry out the basic functions of life.</p>
8	<p><i>Recycling and Solid Waste</i></p> <p>Discover better ways to dispose of "trash." Learn the three R's and the many benefits they provide.</p>	<p>8.P.2 Explain the environmental implications associated with the various methods of obtaining, managing and using energy resources.</p> <p>8.E.1 Understand the hydrosphere and the impact of humans on local systems and the effects of the hydrosphere on humans.</p>
8	<p><i>Wonderful Water</i></p> <p>Learn about the water cycle by engaging in a rain game. Assist in an experiment to show how much water is on Earth, and find out where it is located. Other topics include learning about the properties of water, water quality, and water conservation.</p>	<p>8.P.1 Understand the properties of matter and changes that occur when matter interacts in an open and closed container.</p> <p>8.P.2 Explain the environmental implications associated with the various methods of obtaining, managing and using energy resources.</p> <p>8.E.1 Understand the hydrosphere and the impact of humans on local systems and the effects of the hydrosphere on humans.</p>

<u>Grade Level</u>	<u>Recommended Programs</u>	<u>NC DPI Essential Science Standards Met</u>
Biology	<p><i>Snakes Alive</i></p> <p>Learn about the many species of snakes that call Lake Crabtree and North Carolina home. Find out what makes snakes so unique, and get up close and personal with Corny, the park snake.</p>	<p><i>Bio.2.1</i> Analyze the interdependence of living organisms within their environments.</p> <p><i>Bio.2.2</i> Understand the impact of human activities on the environment (one generation affects the next).</p> <p><i>Bio.3.5</i> Analyze how classification systems are developed upon speciation.</p>
Biology	<p><i>Winter Tree ID</i></p> <p>After the leaves fall, trees can be hard to identify! Using twigs, buds, and other parts of the tree, participants will learn how to identify some of the common species found in the Piedmont.</p>	<p><i>Bio.3.5</i> Analyze how classification systems are developed upon speciation.</p>
Earth/ Environmental Science	<p><i>Soils</i></p> <p>Come learn the secrets of the earth under your feet. Much about the ecology of soil and the processes of it remain a mystery. We'll investigate what little we do know such as how soil is formed, what lives in it, different 'species' of soil, and how it can be conserved.</p>	<p>EEn.2.1 Explain how processes and forces affect the lithosphere.</p> <p>EEn.2.2 Understand how human influences impact the lithosphere.</p> <p>EEn.2.7 Explain how the lithosphere, hydrosphere, and atmosphere individually and collectively affect the biosphere.</p> <p>EEn.2.8 Evaluate human behaviors in terms of how likely they are to ensure the ability to live sustainably on Earth.</p>
Earth/ Environmental Science	<p><i>Recycling and Solid Waste</i></p> <p>Discover better ways to dispose of "trash." Learn the three R's and the many benefits they provide.</p>	<p>EEn.2.2 Understand how human influences impact the lithosphere.</p> <p>EEn.2.4 Evaluate how humans use water.</p> <p>EEn.2.5.5 Explain how human activities affect air quality.</p> <p>EEn.2.6 Analyze patterns of global climate change over time.</p> <p>EEn.2.7.3 Explain how human activities impact the biosphere.</p> <p>EEn.2.8 Evaluate human behaviors in terms of how likely they are to ensure the ability to live sustainably on Earth.</p>