

EDUCATIONAL RESOURCES FOR ELEMENTARY SCHOOL STUDENTS (K-3)	
Lesson Themes	Birding & Binoculars
Compiled by	Kiersten Nelson, Carol Yang, Isabella Ragonese, Cali Wilson
Organization	EcoReach, Odum School of Ecology, University of Georgia
Student Learning Outcomes	<p>Students will be able to (SWBAT):</p> <ul style="list-style-type: none"> <li>● Use binoculars to look for birds in their neighborhood or on the school campus</li> <li>● Identify key characteristics of birds such as size, shape, and color</li> <li>● Identify key parts of habitats that birds need to live</li> <li>● Explain adaptations and characteristics of birds that distinguish them from other groups of living organisms.</li> </ul>
Grade Levels	K, 1, 2, 3
Relevant Georgia State Standards (Science)	<p>Kindergarten:  SKL1,a. Construct an explanation based on observations to recognize the differences between organisms and nonliving organisms.  SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.</p> <p>1st Grade:  S1L1,b. Ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).  S1L1,c. Design a solution to ensure that a plant or animal has all of its needs met.</p> <p>2nd Grade:  S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms.  S2L1,a. Ask questions to determine the sequence of the life cycle of common animals in your area: a mammal such as a cat, dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly.  S2L1,c. Construct an explanation of an animal's role in dispersing seeds or in the pollination of plants.</p> <p>3rd Grade:  S3L1. Obtain, evaluate, and communicate information about the similarities and differences between plants, animals, and habitats found within geographic regions (Blue Ridge Mountains, Piedmont, Coastal Plains, Valley and Ridge, and Appalachian Plateau) of Georgia.  S3L1,a. Ask questions to differentiate between plants, animals, and habitats found within Georgia's geographic regions.  S3L1,b. Construct an explanation of how external features and adaptations (camouflage, hibernation, migration, mimicry) of animals allow them to survive in their habitat.  S3L1,c. Use evidence to construct an explanation of why some organisms can thrive in one habitat and not in another.</p>
Resources Needed	Binoculars, educational resources (links & descriptions included below), waterproof stickers for binocular personalization, drawstring bags for field trips

Group Size	Individually, in pairs, or in small groups
Educational Resources	<p>What are some ways your students can get into the awesome world of birding and make the most of their binoculars? Here are some ideas!</p> <ul style="list-style-type: none"> <li>● BirdSleuth Explorer's Guidebook (developed by the Cornell Lab of Ornithology):  <a href="https://drive.google.com/file/d/1AmBiw5SpeDRF2vG8mdVag-PPzCHz5GOC/view?usp=sharing">https://drive.google.com/file/d/1AmBiw5SpeDRF2vG8mdVag-PPzCHz5GOC/view?usp=sharing</a> <ul style="list-style-type: none"> <li>○ This interactive guidebook will walk students through activities of listening, identifying key parts of habitats, and a bird search (evidence of birds and birds using habitats). Students will learn about bird groups, identification clues, and how to do a bird count.</li> </ul> </li> <li>● Nurturing Nature with Natives Coloring Book (by Georgia Audubon):  <a href="https://drive.google.com/file/d/1RY1p_5V1HT08PzPoXLJMIC1LZ4jriA6h/view?usp=sharing">https://drive.google.com/file/d/1RY1p_5V1HT08PzPoXLJMIC1LZ4jriA6h/view?usp=sharing</a> <ul style="list-style-type: none"> <li>○ Students can use online resources or bird ID guides to color in native birds that are found in Georgia. Students can look for realistic colors that can help them learn to identify birds, such as a red belly on American Robins.</li> </ul> </li> <li>● Reading of <u>Ruby's Birds</u> <a href="https://www.youtube.com/watch?v=DTbTeNygr-Q">https://www.youtube.com/watch?v=DTbTeNygr-Q</a> <ul style="list-style-type: none"> <li>○ This is a fun and interesting reading of a picture book, titled <u>Ruby's Birds</u>. This is a great way for students to hear more about birding and get excited about using their own binoculars!</li> </ul> </li> <li>● Sheridan Alford's Birding 101 videos <ul style="list-style-type: none"> <li>○ Intro to birding <a href="https://www.youtube.com/watch?v=G3zv80_0EfY">https://www.youtube.com/watch?v=G3zv80_0EfY</a></li> <li>○ First-time birders <a href="https://www.youtube.com/watch?v=aO5-suHianM">https://www.youtube.com/watch?v=aO5-suHianM</a></li> <li>○ Tips and tricks for beginners <a href="https://www.youtube.com/watch?v=_oP9D61PmsY">https://www.youtube.com/watch?v=_oP9D61PmsY</a></li> </ul> </li> <li>● Students can use waterproof stickers to decorate their binoculars. The stickers can help students personalize and get excited about their binoculars!</li> <li>● Drawstring bags for field trips - these will facilitate students getting outside in their neighborhoods and on school campuses with their binoculars, bird ID guides, and other resources</li> </ul>