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<b>Lesson Plan Title:</b> What Lives in Our Secret Garden?	<b>State:</b> WA
<b>Lesson Time Frame:</b> 4 30 minute lessons, 1 one hour lessons, 6 hours working with parent volunteers (2 children with one parent for 20 minutes)	<b>Inspired by this Expedition:</b> Conserving the Pantanal
<b>Student Level:</b> K-3	

Academic Standards

**1.3 Life Sciences- Understands how interactions within and among systems**

**Interdependence of Life**  
 Demonstrates that animals behaviors are influenced by internal and external cues (e.g. hunger, the presence of plants)

**2.1 Develops abilities necessary to do scientific inquiry**

**Designing and conducting investigations**  
 Plans and conducts simple investigations using appropriate tools, measures, and safety rules

**Communication**  
 Records and reports observations through oral language, numbers, pictures, and sentences

**3.2 Relationship of science and technology**  
 Recognizes that people have invented tools for everyday life and for scientific investigations

Abstract	It is a goal of science education to help children understand the needs of living things to ensure their survival. It is important that they understand environmental issues and the effects humans can have on the lives of other
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	living things. It is also important that they understand how to create an investigation and collect data.
Goal	The student will understand that different birds and mammals live in our immediate ecosystem and that food availability, space to make a home, and plant life effect their presence.
Performance Indicators (objectives & measurements)	By the end of the study, Kindergarten students will: <ul style="list-style-type: none"> <li>A. Identify birds and mammals that live in our immediate ecosystem</li> <li>B. Identify the needs of these animals</li> <li>C. Understand how to conduct a simple investigation</li> <li>D. Record and share data with others</li> <li>E. Recognize tools, including the camera trap, that help in scientific investigations</li> </ul>
Background Information	The students will need to have prior knowledge in: <ol style="list-style-type: none"> <li>1. Using a bird book to identify birds in our garden</li> <li>2. Keeping track of the number of items observed using pictures or tally marks</li> </ol>
Materials	Clip boards, pencils, binoculars, local bird books, camera trap, stop watch, parent volunteers, digit camera
Instructional Procedures	<p>Lesson 1: Identifying parts of a bird  Together we will label a large picture of a sea gull (local bird). After labeling each part, we will name the purpose of each part.</p> <p>Lesson 2: Identifying need of a bird  We will read a non-fiction book about birds. We will then create a list of things a bird needs to live (food, water, a home).</p> <p>Lesson 3: Identifying mammals that live in our environment  We will read the book “O is for Orca,” discussing the northwest animals that could be found in our garden. Each child will pick an animal to illustrate. We will use these illustrations and actual pictures to create a book to help students identify animals during observations.</p> <p>Lesson 4: With a parent volunteer, 2 children at a time will go to the secret garden and sit quietly for 20 minutes. During this time they will observe living things that visit the garden and how long they stay. They will also photograph and work to identify the type of animal it is.</p> <p>Lesson 5: Students will work with the teacher to set up the camera trap to record animals visiting the garden in the night. The next day the camera will be checked by a small group of students and a parent volunteer.</p> <p>Lesson 6: Students will work together in small groups to organize the data collected to share with the larger school community.</p>
Assessment	Parent feedback, participation and attention during group discussions, final data presentation (graph)
Extentions	The class will repeat this activity later in the year after we completed our birdhouse project and they have been placed in the secret garden. We will then compare the data. We will also do observations during different seasons to see if the number or types of animals visiting changes.