### Synopsis:

In this investigation, students will simulate the interactions among organisms across ecosystems and predict patterns of their interactions. Students will take on the role of Wildlife Managers and use a model to develop understanding of how management decisions cause changes in an ecosystem.

Additionally, students will have the opportunity to enjoy an easily accessible form of outdoor recreation while making observations in nature.

#### Students will:

- Participate in analyzing data which provides evidence of the effects of resource availability on organisms and populations in an ecosystem.
- Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
- Construct an argument supported by evidence that the stability of populations is affected by changes in an ecosystem.
- Share their conclusions verbally in small and large groups.
- Explore the National Forest.

Length of Program: 2.5 hours Location: Stokes Nature Center Season Offered: Fall, Winter, Spring

**Program Fee:** \$9 per student (includes snowshoe rental) or \$6 per student spring and fall

Logistics:

- The school bus should drop you off at the trailhead (on the south shoulder of the highway) and you will walk up to the Nature Center (about 7-10 minutes) where you will be met by your Naturalist Educators. Programs begin and end on time, so please plan your travel time accordingly.
- Please have a plan for dividing your group in half, each smaller group should include a teacher or staff from your school.
- One small group will snowshoe or hike with one Naturalist and the other small group will stay at the Nature Center for instruction. After one hour and 10 minutes the two groups will switch.
- At the end of the program you will walk back to the trailhead where your bus should meet you.
- Students should wear visible name tags (packing tape over a name tag keeps them secure).
- Students should wear comfortable clothing that may get dirty.
- We may be outside for the entirety of this program, dressing in layers is advised.
- Closed toe shoes are appropriate. Please, **no flip flops**.
- If this is a snowshoeing program, students should wear **winter boots**. If they don't have them, let us know in advance and they may borrow a pair from us.
- Please bring one adult per five students.
- The Nature Center will be open for students to use the bathroom if necessary. They will need to be supervised by an adult from your school when doing so.
- Water fountains are <u>not</u> available at the Nature Center, students are welcome to bring a full water bottle.

### Classroom Teacher Pre-Program Preparation

 If multiple classrooms from your school are participating, please ensure that all teachers on your team receive the confirmation email which contains essential information about your scheduled field experience.

# **Curriculum Connections**

# SEEd Standards 6.4.1, 6.4.2, 6.4.4

Science and Engineering Practices	Crosscutting Concepts	Disciplinary Core Ideas
Analyzing and Interpreting Data Constructing Explanations and Designing Solutions Engaging in Argument from Evidence	Energy and Matter Stability and Change	Ecosystems

Mathematics	6.MP.1-8	
English Language Arts	<ul> <li>Writing standard 8</li> <li>Speaking &amp; Listening Stds 1, 3, 4</li> </ul>	
PE	6.4.1-5, 6.5.1-5 (snowshoeing, hiking)	
SEL	Self-Awareness, Self-Management, Social-Awareness, Relationship Skills, Responsible Decision-Making	