



## 7th Grade – Science: Ecosystems and Resources

### **Standard:**

Science *MS-LS2-1*

Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

### **Objective(s):**

Students will consider what resources are needed for the health and survival of organisms within an ecosystem along the Vine Trail

### **4Cs:**

Critical Thinking

### **Materials:**

Science notebooks and/or clipboard and paper, pencils, local Flora/fauna ID books,

### **Prerequisite Knowledge (Vocabulary, part of trail, technology, etc):**

Ecosystems, Organisms, Population, Resources, Growth, Reproduction, Competition

### **Lesson Summary (5-7 sentences):**

Pick a small section of the trail with a distinctive ecosystem (ie. marsh, grassland, stream, woodland). What are the organisms that live here, make a list. Ask students to think about the resources that are necessary in order for each of the organisms to be successful in that ecosystem. List all of the resources you can think of that organisms will compete for in that section. If time permits, pick another section that contains a different type of ecosystem and repeat.

Back in class, students should discuss the resources they listed for each ecosystem. If more than one ecosystem was visited, develop a list of the resources that were



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commonly competed for in all of the ecosystems and lead a discussion about why they were important.

Students may not know that a balance of resources is needed for a healthy population and not realize that plants also compete for resources.

Map of Trail (state if zone specific):

Additional Resources:

[Hudson River Ecosystem](#) and [Hudson River Teacher Guide](#)  
[Differential Survival of Organisms](#)