

## Teacher's Guide for "The Ecosystem Song"

CT State Standards	National Science Standards
<p><b>C. 5 Explain how populations are affected by predator -prey relationships</b></p> <p><b>C. 6 Describe the common food webs in different Connecticut ecosystems</b></p>	<p><b><u>Populations and Ecosystems</u></b>  <b>Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers – they make their own food. All animals, including humans, are consumers, which obtain food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food.</b></p>

### I. Vocabulary covered within "The Ecosystem Song"

1. Ecosystem - a community of organisms interacting in their environment
2. Producers - organisms that make their own food, such as plants
3. Consumers – organisms that consume food such as animals
4. Decomposers – organisms that break down dead organisms (ex. Fungi)

### II. Understanding Ecosystem Concepts

1. Energy cycles through ecosystems

A. The refrain of the song discusses this relationship – “energy moves through from the sun to the plants to you”

This means that plants utilize the energy from the sun to make their food, other animals including ourselves take this energy and use it when consume either plants or other animals that eat plants. The decomposers then use the energy taken from dead or decaying organisms.

B. Energy decreases from each stage

Producers have the most energy → Consumers (less energy) → decomposers

2. Understanding Food Chains

A. The song gives some simple examples that can be used to illustrate food chains.

Verse 1 states, “ the little squirrel eats the nuts from a tree...that squirrel became a hawk’s French fries.

Tree nuts (producer) → Squirrel (primary consumer) → hawk  
(secondary consumer)

Note: The arrow points to the organism that is doing the eating.

Verse 2 states, “algae make their food from the sun, the smaller fish eat those algae one by one, seals eat those fish and the dolphins do too, killer whales come and the seals are through”

Algae (producer) → small fish (primary consumer) → seals and dolphins  
(secondary consumer) → killer whales (tertiary consumer)

3. Ecosystems are often damaged by human interactions (pollution, and deforestation)

Student Worksheet for "The Ecosystem Song"

Part I. Define the following vocabulary words in the song

1. What is an ecosystem?

\_\_\_\_\_

2. What is a producer?

\_\_\_\_\_

3. What is a consumer?

\_\_\_\_\_

4. What is a decomposer?

\_\_\_\_\_

Part II. Answer the following questions on the food chains presented below.

Nuts → squirrel → Hawk

1. In this food chain what is the producer? \_\_\_\_\_

2. In this food chain what is the secondary consumer? \_\_\_\_\_

3. In this food chain what is the primary consumer? \_\_\_\_\_

Algae → Small fish → seals → killer whales

4. What role does the algae play in this food chain? \_\_\_\_\_

5. What role do the killer whales play? \_\_\_\_\_

6. What role do the small fish play? \_\_\_\_\_

7. What role do the seals play? \_\_\_\_\_