

# Web of Life

## *Wyoming Science*

### Objectives:

- Students will learn that all living elements of an ecological system are interdependent.

### Background:

Each animal, plant or bird, has a role in the environment. This role is called an ecological niche. The niche includes such things as where and how it gathers food, its role in the food chain, what it gives to and does for the community, its habits, periods of activity, and so forth. Because a description of the complete ecological niche would include an infinite number of factors, the concept is most useful in terms of differences among species.

An animal's niche can be described as "what it does for a living." In a sense the role can be compared to what people do for a living—that is, what their job of professions are in communities in which they live.

### Activity Procedure

1. On 3x5 cards, list the components of an ecosystem. Include animals, plants, soil, water and the sun (be sure to include several animals and plants that are part of interconnecting food chains).
2. Have students choose one of the signs and wear it.
3. Have students sit in a circle facing each other.
4. Start with one plant or animal and have the student explain how their plant or animal depends on other components of the ecosystem. Toss a ball of yarn to all components and have each component hang on to the yarn and toss the ball to the next component.
5. Continue this process until all plants and animals have listed the components upon which they depend.
6. A complicated web will be constructed. Pose situations to the students in which one component of the system disappears (example: poison eliminates the plants) and that the component drop its string. Any other related component should also drop the string.



## Standards

### Science

Life Systems: 1.1, 1.2, 1.3



## Materials

- 3 x 5 Cards
- Large ball of Yarn or String

## Estimated Time

30 Minutes

## Grades 1-2

***vocabulary:***

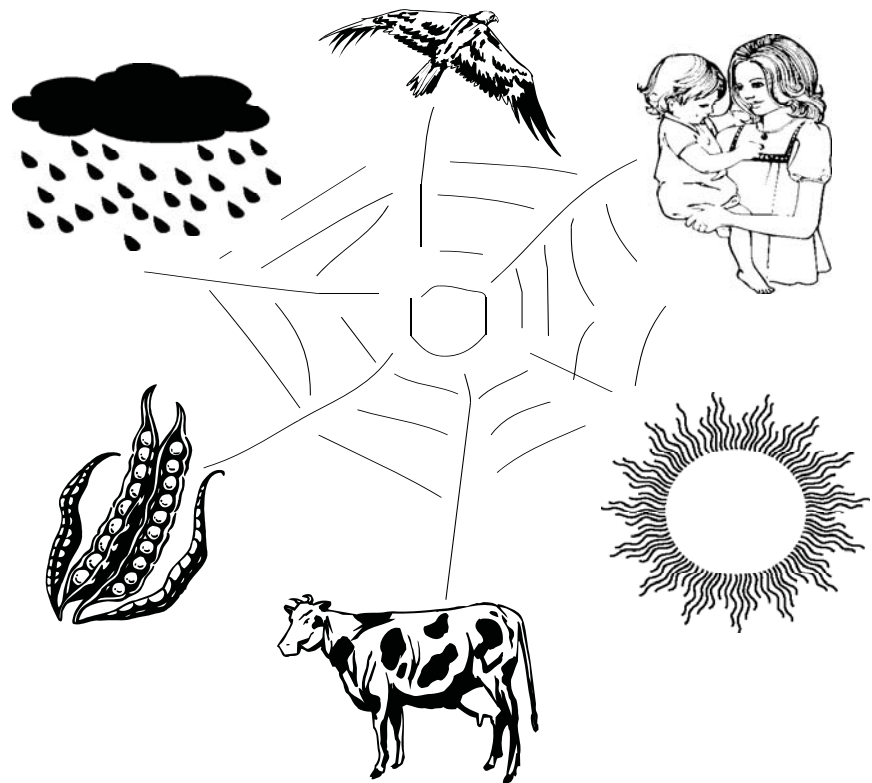
- *environment*
- *ecological niche*
- *community*
- *ecosystem*
- *balance*
- *interrelationship*

**Question for Investigation:**

- Discuss what happened to the system.
- Discuss the concept of interrelationships within an ecosystem.
- Discuss how humans can help keep the system in balance or create imbalances.

**SAMPLE ECOSYSTEM COMPONENTS**

***prairie ecosystems:*** sun soil, water, sagebrush, pronghorn, bee, prairie falcon, sage grouse, cactus, meadowlark, cottontail rabbit, bobcat, magpie, beetle, grasshopper, grass coyote



Materials Adapted from <http://www.agclassroom.org/teacher/lesson.htm>