Writing Through The Ecosystem

Subject: Life science, writing

Grade: 6-8

Lesson Topic: Ecosystems

Length: Variable

Learner Objective:

Students will express their knowledge of ecosystem interactions through creative writing.

Introduction:

The interwoven concepts and interactions of ecosystem components are often described as a web of interactions, but unfortunately students often get caught in a web of confusion when trying to understand the subtleties of those interactions. Creative writing provides an opportunity for students to express their understanding of the concepts through the web of imaginative connections.

Content:

Having introduced the various concepts and interactions of ecosystems to the students, allow them to take their own imaginative journey through an ecosystem of their choosing, using as many of the keywords listed in the Vocabulary section below.

Materials and Supplies:

None required.

See Vocabulary section below for keywords used in the writing exercise.

Anticipatory Set:

Read stories out loud, which have ecosystems as the theme (see Resources). Older students may be assigned particular titles to read on their own. Since this ecosystem lesson, and others within *Aliens In Your Neighborhood*, is meant to be blended with your own Life Science curriculum, the integration of literature can occur at any time.

Activity Outline:

The students' stories may encompass any genre they wish such as an adventure story, a love story, a mystery, or science fiction.

As a basic format it should have an introduction, a rising tension or climax, and some sort of resolution. If the students are cued to think in terms of an adventure or journey they will most likely think in terms of moving through the ecosystem and thus, be more successful with incorporating a wider range of the keywords listed in the Vocabulary section below.

Length should not be a requirement, though 2-5 pages are not unreasonable. Where possible, papers should be double spaced to allow for corrections. At least one draft should be presented, and if time permits, peer reviews should be part of the first

draft assessment. If possible, this activity can be in conjunction with the Literature instructor as part of his/her curriculum. Encourage final drafts to be submitted with a cover page and/or illustrations.

Closure and Assessment:

Assessment should be based upon:

- Effort in creating a rough draft
- Ability to fairly consider and critique other students' works in peer review
- Timeliness of work
- A final story that incorporates a full range of the keyword *in appropriate fashion*.

A story that successfully weaves a greater number of keywords in an imaginative and accurate manner will be scored higher than students who are not yet able to express understanding of ecosystem terminology.

Independent Practice and Related Activities:

Request a second peer review, lengthen the story with use of additional keywords, and prepare a manuscript for publishing - type *"children's stories" + publish* in your Internet browser to search for publishing sources and contests.

Resources:

The following reading list was assembled by using various vocabulary words (listed below) in the *Database of Award Winning Children's Literature*, found at:

http://www.dawcl.com/introduction.html

Author: Savage, Deborah
Title: *Summer Hawk* (1999)
BBYA 2000;

> When her rescue of a baby hawk takes fifteen-year-old Taylor to a raptor rehabilitation center in rural Pennsylvania, their offer of a summer public relations job seems a step toward her dream of becoming a journalist. (Chapter)

Author: Gilmore, Kate
Title: *Exchange Student* (1999)
BBYA 2000;

> When her mother arranges to host one of the young people coming to Earth from Chela, Daria is both pleased and intrigued by the keen interest shown by the Chelan in her work breeding endangered species. (Chapter)

Author: Larson, Gary Illus. by: Larson, Gary
Title: *There's A Hair in My Dirt ! : A Worm's Story* (1998)
BBYA 1999;

When a worm becomes tired of being a worm, Father worm tells him an environment fable, of the beauty, power, and fragility of nature, and the importance of all players -- including the worms. (P) (Picture)

Author: Lauber, Patricia
Title: *Summer of Fire : Yellowstone 1988* (1991)
ALAN 1992;

Describes the season of fire that struck Yellowstone in 1988, and examines the complex ecology that returns plant and animal life to a seemingly barren, ash-covered expanse. (Chapter)

Author: Bond, Nancy
Title: *Voyage Begun* (1981)
BGHBH 1982;

Living in the not-so-distant future when the energy supply has been almost depleted, a teenage boy begins to understand the long-term effects of recent climate and weather changes and environmental pollution on the land and the people. (Chapter)

Author: Kevles, Betty Ann
Title: *Watching the Wild Apes : The primate studies of Goodall, Fossey, and Galdikas* (1976)
BGHBH 1977;

Describes the field work of three female primatologists and what their studies have revealed about the behavioral patterns of chimpanzees, gorillas, and orangutans in their natural habitat. (Chapter)

Author: Hobbs, Will
Title: *Maze* (1998)
BBYA 1999;

Rick, a fourteen-year-old foster child, escapes from a juvenile detention facility near Las Vegas and travels to Canyonlands National Park in Utah where he meets a bird biologist working on a project to reintroduce condors to the wild. (C) (Chapter)

Author: Bodker, Cecil Translated by: Poulsen, Gunnar
Title: *Leopard* (1975)
MLBA 1977;

An Ethiopian boy finds his life endangered when he discovers that a disguised blacksmith, not a leopard, is responsible for a great many missing cattle in the area. (Chapter)

Vocabulary:

Abiotic, Adaptation, Biosphere, Biotic, Community, Competition, Consumer, Cooperation, Decomposers, Endangered, Extinct, Food Chain, Habitat, Niche, Population, Predation, Producers, Recycling, Scavengers, Symbiosis

National Science Education Standards:

Life Science - CONTENT STANDARD C:
As a result of their activities in grades 5-8, all students should develop understanding of

- ❑ Structure and function in living systems
- ❑ Regulation and behavior
- ❑ Populations and ecosystems
- ❑ Diversity and adaptations of organisms

Science in Personal and Social Perspectives - CONTENT STANDARD F:
As a result of activities in grades 5-8, all students should develop understanding of

- ❑ Populations, resources, and environments
- ❑ Risks and benefits
- ❑ Science and technology in society

History and Nature of Science -CONTENT STANDARD G:
As a result of activities in grades 5-8, all students should develop understanding of

- ❑ Science as a human endeavor
- ❑ Nature of science