

National Science Content Standards:

Life Science

- Regulation and Behavior
- Populations and Ecosystems

<u>Unifying Concepts and Processes</u>

- Systems, Order and Organization
- Evidence, Models and Explanation

Vocabulary:

Predator Prey Impact Ecosystem Fact Opinion

Wolf Recovery in North America

Introduction: Two articles from the magazine *Time For Kids* introduce students to the Wolf restoration project as well as its successes and challenges.

This activity would work well prior to playing WolfQuest.

Objectives:

At the end of this activity, the student will:

- 1. Explain how and why the wolf population was almost exterminated.
- 2. Understand the impact on an environment when the top predator (wolf) is removed from an ecosystem.
- 3. Compare human viewpoints of wolf reintroduction.

Procedure:

Teacher Prep:

- ✓ Background: Read the article "Wolf Recovery in North America" for an update on the Wolf Recovery Project.
- ✓ Make copies of the student articles.
- ✓ Place listed sentences/phrases on separate index cards making enough cards one for each student.
- 1) At dawn, when the ice mists rise
- 2) Yellowstone's boiling rivers
- 3) Sound like the wind slipping over glass bottles
- 4) A low moaning song
- 5) Sound hasn't been heard
- 6) They hunted and killed them
- 7) An endangered species
- 8) Return these predators
- 9) People have read in storybooks
- 10) Ecosystem in balance before humans arrived
- 11) Ranchers opposed
- 12) Collars that send out a unique radio signal
- 13) Fund to pay back
- 14) Each paid about \$1,200

Links:

Teacher
Background/Update:
"Wolf Recovery in
North America"
http://www.fws.gov/ho
me/feature/2007/gray
wolf_factsheetregion2.pdf

Student articles:

"The Packs Are Back" http://www.timeforkids.com/TFK/teachers/wr/article/printout/0,28257,90096,00.html

"The Call of the Wild" http://www.timeforkids.com/TFK/teachers/wr/article/0,27972,93424, 00.html

Additional article:
"The Wolf Packs Are
Back"
http://www.timeforkids

http://www.timeforkids. com/TFK/teachers/ns/ article/printout/0,2825 7,90954,00.html

Materials:

- One phrase per student on an index card
- Make copies of the student articles to be used in the groups. To reduce the amount of copies students could read in partners.
- Overhead of the discussion questions listed above.
- T-chart on large paper or board.

Pre-reading activity:

- 1. Pass out index cards one per student.
- 2. Students will get up to share their sentence/phrase with each other. As students move around, make sure they not only share their cards but also begin discussing what the article might be about.
- 3. Next, put students into groups of 4-5 to discuss what they predict is happening in the text.
- 4. Ask students to record their predictions by writing a "We think" statement "We think that this article is about......"
- 5. Finally, as students share their "We think" statements, make sure you ask them to explain how they reached that prediction.
- 6. Now read the articles.

Hint: This strategy is to get students interested in and thinking about the text. It is not important whether their prediction is right or wrong.

After reading the articles students should answer the following questions:

- Historically, what are reasons that wolves were killed? Settlers feared the wolves, wolves killed cattle and sheep, storybooks depicted wolves as evil – they might attack humans
- 2. What are at least 3 negative impacts to the environment that were observed after many wolves had been killed?

 Coyotes became too numerous causing them to feed more on the same rodents that foxes and badgers eat causing them to starve, more elk and bear which caused more plants and trees to be eaten
- 3. Make a T-chart to compare attitudes towards wolf reintroduction of ranchers vs. environmental groups.

Impact of Wolf Reintroduction

Ranchers	Environmental Groups

- 4. What role does the group "Defenders of Wildlife" play in the wolf reintroduction project?
- 5. If you were asked to take a side in this controversy, would you side with the ranchers or the environmentalists? Give at least 2 reasons for your choice.

Pre-Reading Statements for Wolf Recovery in North America Lesson

At dawn, when the ice mists rise

Yellowstone's boiling rivers

Sound like the wind slipping over glass bottles

A low moaning song

Sound hasn't been heard

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An endangered species

Return these predators

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Ecosystem in balance before humans arrived

Ranchers opposed

Collars that send out a unique radio signal

Fund to pay back

Each paid about \$1,200