

# Werewolves, Wendigos & Reality



**Grade Level:** 3-5

**Time Needed:** See procedures (estimates)

## Introduction:

This is the first middle school lesson on our Teacher Page. It demonstrates our commitment to teaching kids about living with and respecting animals with which we share our environment. People have mixed feelings about wolves. They look like dogs, so we are drawn to them as we are to dogs. However, we have also been taught to fear them: think Three Little Pigs, Little Red Riding Hood.

## Essential Question:

How should we deal with potentially dangerous predators that were once part of our ecosystems?

## Standards:

### NGSS:

#### LS2.A: Interdependent Relationships in Ecosystems

- Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors. (MS-LS2-1)
- In any ecosystem, organisms and populations with similar requirements for food, water, oxygen, or other resources may compete with each other for limited resources, access to which consequently constrains their growth and reproduction. (MS-LS2-1)

- Growth of organisms and population increases are limited by access to resources. (MS-LS2-1)
- Similarly, predatory interactions may reduce the number of organisms or eliminate whole populations of organisms. Mutually beneficial interactions, in contrast, may become so interdependent that each organism requires the other for survival. Although the species involved in these competitive, predatory, and mutually beneficial interactions vary across ecosystems, the patterns of interactions of organisms with their environments, both living and nonliving, are shared. (MS-LS2-2)

### **LS2.C: Ecosystem Dynamics, Functioning, and Resilience**

- Ecosystems are dynamic in nature; their characteristics can vary over time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations. (MS-LS2-4)
- Biodiversity describes the variety of species found in Earth's terrestrial and oceanic ecosystems. The completeness or integrity of an ecosystem's biodiversity is often used as a measure of its health. (MS-LS2-5)

### **LS4.D: Biodiversity and Humans**

- Changes in biodiversity can influence human's resources, such as food, energy, and medicines, as well as ecosystem services that humans rely on—for example, water purification and recycling. (*secondary to MS-LS2-5*)

### **Common Core:**

- **RST.6-8.8** Distinguish among facts, reasoned judgment based on research findings, and speculation in a text. (MS-LS2-5)
- **SL. 8.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (*MS-LS2-2*)

### NCSS:

- The study of people, places, and environments enables us to understand the relationship between human populations and the physical world.
- During their studies, learners develop an understanding of spatial perspectives and examine changes in the relationship between peoples, places and environments.
- People have wants that often exceed the limited resources available to them.
- Science, and its practical application, technology, have had a major influence on social and cultural change, and on the ways people interact with the world.

### IB:

#### Sciences:

- Through scientific inquiry, exploration, and experimentation, students in the Sciences subject group develop a scientific mindset and problem-solving abilities.

#### Individuals and Societies:

- By examining human behavior, societal structures, and global issues, students develop critical thinking skills and gain a deeper understanding of the world around them.

## Objectives:

- Identify the structures that make wolves apex predators.
- Describe wolf behavior.
- Compare Yellowstone with and without wolves.
- Analyze what happens in an ecosystem when an Apex predator is eradicated.
- Examine arguments for and against the reintroduction of wolves into an ecosystem.

## Materials:

- [https://www.youtube.com/shorts/\\_ImFUydK5NA](https://www.youtube.com/shorts/_ImFUydK5NA) The Werewolf VS The Wendigo [Epic Mythical Battle]

- <https://www.teacherspayteachers.com/Product/The-Wolf-Guide-5145258> The Wolf Guide
- <https://wolfhaven.org/learn-about-wolves/education-content/wolf-or-coyote/> Wolf or Coyote
- <https://wolfhaven.org/learn-about-wolves/education-content/what-am-i-game/> Am I a Wolf?
- <https://www.youtube.com/watch?v=YXMo5w9aMNs> Wolves 101 | Nat Geo Wild
- <https://www.youtube.com/watch?v=55WS15Lj5Zo> Wolves and Ravens: Nature's Best Friends
- <https://wolf.org/wolf-info/wild-kids/wolf-quest/> WOLFQUEST Game
- <https://www.youtube.com/watch?v=ysa5OBhXz-Q> How Wolves Change Rivers
- <https://www.youtube.com/watch?v=ERFuD5EHH6E> How the re-introduction of wolves is impacting Colorado
- <https://therookiewire.usatoday.com/story/news/2024/01/18/why-colorado-wolf-reintroduction-has-caused-such-a-big-stir/72172994007/> Polarizing predator: Separating fact from fiction to answer common questions about wolves
- <https://coloradosun.com/2024/11/03/gray-wolf-south-of-interstate-70-colorado-reintroduction/> Gray wolf tracked south of Interstate 70 in Colorado for the first time since reintroduction
- [https://www.dcreport.org/2023/03/02/restoration-of-wolves-in-colorado-shows-how-humans-are-rethinking-their-relationships-with-wild-animal/?gad\\_source=1&gclid=Cj0KCQiA\\_qG5BhDTARIsAA0UHSL-0mAik0Bky5-Dj3ANFeVGKNSxHj-y-C\\_9dEonP3hy59Grs2Ki94AaAps8EALw\\_wcB](https://www.dcreport.org/2023/03/02/restoration-of-wolves-in-colorado-shows-how-humans-are-rethinking-their-relationships-with-wild-animal/?gad_source=1&gclid=Cj0KCQiA_qG5BhDTARIsAA0UHSL-0mAik0Bky5-Dj3ANFeVGKNSxHj-y-C_9dEonP3hy59Grs2Ki94AaAps8EALw_wcB) Wolf Restoration in Colorado Shows How Humans Are Rethinking Their Relationships With Wild Animals
- <https://theconversation.com/in-defence-of-the-wolf-this-big-bad-animal-is-more-prey-than-predator-118946> In defence of the wolf: this big bad animal is more prey than predator
- <https://www.teacherspayteachers.com/FreeDownload/Environmental-Issues-Debate-Guide-Rubric-11253162>

- <https://www.youtube.com/watch?v=JHXwPFMvaXk> The Real Story of The Two Wolves

### Hook:

Without explanation, show the video: [https://www.youtube.com/shorts/\\_ImFUydK5NA](https://www.youtube.com/shorts/_ImFUydK5NA) The Werewolf VS The Wendigo [Epic Mythical Battle].

- Ask them to predict what the lesson will be about. (They may hope it's about mythical creatures like the Wendigo, so let them know that not at this time.)

### Procedure 1. Wolf Anatomy

- Distribute individual copies of:  
<https://www.teacherspayteachers.com/Product/The-Wolf-Guide-5145258> The Wolf Guide.
- Either alone or in pairs (if reading is an issue) ask them to read Grades 5-12, Chapter 2, pp. 37-51, Anatomy.
  - In the margin, write notes about anatomical features that make the wolf an apex predator.
    - Explain that “notes” means single words in this case. No sentences or even phrases allowed.
  - While waiting for others to finish, they may do:  
<https://wolfhaven.org/learn-about-wolves/education-content/wolf-or-coyote/> wolf or coyote
  - <https://wolfhaven.org/learn-about-wolves/education-content/what-am-i-game/> Am I a Wolf?
- When everyone is finished, ask if they had any questions during this activity. Discuss them if they did..
  - Ask them to go up to p.12, and illustrate the picture of the wolf with the anatomical features they put in their notes.
  - You can either collect their entire packet or ask them to tear the page out of the packet and turn it in. This can serve as a formative assessment.

### Procedure 2: Wolf Behavior

- Show the video: <https://www.youtube.com/watch?v=YXMo5w9aMNs> Wolves 101 | Nat Geo Wild
- Ask students to do Chapter 4 in their packet; Wolf Behavior pp. 59-77, the same way they did Ch.3. This time, they will probably have to use short phrases.
  - You may do a section together or the entire chapter together if they need reinforcement.
- When finished, allow them to play the game:  
<https://wolf.org/wolf-info/wild-kids/wolf-quest/> WOLFQUEST Game (with headphones) *Only level 1 is free.*
- If this chapter was done individually, go over the answers together.
- If you have time, show the video:
- <https://www.youtube.com/watch?v=55WS15Lj5Zo> Wolves and Ravens: Nature's Best Friends and discuss it. Ask if they can think of any other animal relationships like this.
- Repeat the process used in Procedure 1 for assessment.

### Procedure 3: Wolf Ecology

- Show the video: <https://www.youtube.com/watch?v=ysa5OBhXz-Q> How Wolves Change Rivers
  - Discuss the changes they observed.
  - Create a Venn diagram comparing Yellowstone with and without wolves.  
<https://www.teacherspayteachers.com/Product/Blank-venn-diagram-comparison-and-contrast-chart-3560110> Blank venn diagram comparison and contrast chart
  - Discuss what the apex predator in your local area is or should be. (In many places today, if it isn't humans, it is probably the coyote. It might be feral cats).
    - If no one knows, divide the class into two groups: one searching for the current apex predator, and one searching for what it may have been 200-300 years ago. To make it go more quickly, offer a reward for the first person to

come up with the answer. (free homework pass, dropping a quiz score, candy, etc.)

- Divide the class into groups of 2 or 3.
  - Ask them to think about how the current apex predator has or is changing the local environment; OR how the local environment has been changed since the original apex predator was extirpated. They can either make a diagram or write something.
    - Allow time for each group to present their scenarios.
- Simulation:
  - Divide the class into 5 groups. Give each group 1 of the following articles:
    - 1.<https://www.youtube.com/watch?v=ERFuD5EHH6E> How the re-introduction of wolves is impacting Colorado
    - 2.<https://therookiewire.usatoday.com/story/news/2024/01/18/why-colorado-wolf-reintroduction-has-caused-such-a-big-stir/72172994007/> Polarizing predator: Separating fact from fiction to answer common questions about wolves
    - 3.<https://coloradosun.com/2024/11/03/gray-wolf-south-of-interstate-70-colorado-reintroduction/> Gray wolf tracked south of Interstate 70 in Colorado for the first time since reintroduction
    - 4.[https://www.dcreport.org/2023/03/02/restoration-of-wolves-in-colorado-shows-how-humans-are-rethinking-their-relationships-with-wild-animal/?gad\\_source=1&gclid=Cj0KCQiA\\_qG5BhDTARIsAA0UHSL-0mAik0Bky5-Dj3ANFeVGKNSxHj-y-C\\_9dEonP3hy59GrS2Ki94AaAps8EALw\\_wcB](https://www.dcreport.org/2023/03/02/restoration-of-wolves-in-colorado-shows-how-humans-are-rethinking-their-relationships-with-wild-animal/?gad_source=1&gclid=Cj0KCQiA_qG5BhDTARIsAA0UHSL-0mAik0Bky5-Dj3ANFeVGKNSxHj-y-C_9dEonP3hy59GrS2Ki94AaAps8EALw_wcB) Wolf Restoration in Colorado Shows How Humans Are Rethinking Their Relationships With Wild Animals
    - 5.<https://theconversation.com/in-defence-of-the-wolf-this-big-bad-animal-is-more-prey-than-predator-118946> In defence of the wolf: this big bad animal is more prey than predator
    - After reading, tell each group they represent one set of stakeholders:
      - farmers/ranchers



- environmentalists
- tourists
- pet owners
- government officials (*special instructions: they must present the official argument for introducing the wolves, but they must not voice an opinion. They may question the other groups. You can also make each official a representative of one of the other groups if you so choose*)
- Explain that they are going to debate the reintroduction of wolves into your local area. Allow time for them to collect their arguments, and prepare a 1 minute opening statement.
  - Begin the scenario by stating that this is the open hearing about Resolution 005: Ordering the Introduction of One Wolf Pack into (name a local rural area) in the Coming Year. (You may include a map if so desired)
  - Explain that each interest group will have 1 minute to state their position on the issue.
  - After hearing the opening statements, explain that the government officials are allowed to question each of the groups as they argue their positions, but that as the voting officials, they must remain neutral.
  - Open the debate. (If students remain silent, start asking questions about their position, and ask groups on the other side of the argument how they feel about the positions of the other groups OR ask the government officials to do it)
  - When you feel the debate has either run its course, or is starting to get heated, cut it off.
  - Tell the government officials to vote on whether to adopt Resolution 005 or not. They must all vote individually, not as a group, and they must give their reason for why they voted the way they did.
- Debrief the simulation: (*It's usually a good idea to have them write out their answers before asking them to discuss them. It gives them time to think.*)
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- Were you able to argue from your real opinion, or did you have to argue for an opinion you disagree with? Would arguing a different point of view have been easier or harder?
- Government officials: did you vote your honest opinion, or did you vote as you thought your constituents wanted?
- Which group do you think had the easiest argument? The hardest?
- How would you really feel if your local government wanted to reintroduce wolves?
- Should the people in the state capitol have the right to decide whether a predator should be allowed in some other part of the state? (remember: Coloradans all over the state voted to allow the reintroduction of wolves into one local area)
- Here is a sample rubric. The first part can be used to evaluate your student performances. You can also create your own.

<https://www.teacherspayteachers.com/FreeDownload/Environmental-Issues-Debate-Guide-Rubric-11253162>

### **Procedure 4: Indigenous Lessons from the Wolf**

- Explain that traditional indigenous societies used their understanding of animals to teach and remember lessons about how to behave. Show the following video:

<https://www.youtube.com/watch?v=JHXwPFMvaXk> The Real Story of The Two Wolves

- Whether you choose to discuss this story or not is up to you and your understanding of your class. You may want to ask them to make some kind of representation of the video that doesn't require them to open themselves up to others. (picture, cartoon, verse, etc.)

**Optional:** Allow the students to pick a creative way to explain how they think humans created dogs from wolves. A tic-tac-toe board would work well here:

Story

Poem

Comic Strip

Piece of music

Collage

Sketch/painting

Joke (a chihuahua is descended from a wolf-explain that one)

Creative dance

Student choice

Here's a readable explanation of how it may have happened FYI or to share with the students.

<https://www.animalwised.com/domestication-of-dogs-origin-and-history-4363.html>