

VITAL IMPACTS



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# Student Speaker Series



FEATURING

Ami Vitale



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All website references in this document are consolidated at  
<https://bit.ly/amivitalemedia>



# Ami Vitale

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Ami Vitale, a Nikon Ambassador and acclaimed National Geographic photographer, writer and documentary filmmaker has travelled to more than 100 countries, documenting the poignant realities of war and witnessing the transformative impact of individuals dedicated to positive change.

Throughout the years, Ami has lived in mud huts and war zones, contracted malaria, and donned a panda suit—keeping true to her belief in the importance of “living the story.” Her award-winning work expands our understanding of the natural world—including our place in it.

Her stories illuminate the unsung heroes and communities working to protect wildlife and finding harmony in our natural world. Her work showcases how indigenous and local communities, whose lives have been intertwined with their lands and animals for generations, are currently leading conservation and rehabilitation efforts. From elephants, giraffes, and rhinos in Africa, to pandas in China, Ami’s photographs and films connect viewers to global issues and shine a light on our interconnectedness with the natural world.



Beyond documenting these vital stories, Ami's work serves as a conduit connecting viewers to global issues, illuminating our interconnectedness with the natural world. As the founder and Executive Director of the non-profit Vital Impacts, she extends her passion for the arts to empower and engage youth, reinforcing her commitment to leveraging creativity for positive societal impact.

Visit [Ami's website](#) to learn more about her story and see some of her amazing photographs.

Learn even more about Ami at [Changemaker Talent](#).

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Links to all background materials can be found on the reference page at <https://bit.ly/amivitalemedia>

# Relevant Concepts and Standards



## Science concepts related to Ami's content area include:

- Biodiversity, ecosystems, habitat, species conservation, resource availability, food webs, ecosystem services, endangered species, extinction, poaching, animal adaptations, ecosystem engineers, human environmental impact

## 5th-8th grade standards that may be supported by Ami's content include:

- **5-ESS3-1** - Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.
- **MS-LS2-1** - Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
- **MS-LS2-4** - Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations
- **MS-ESS3-3** - Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment
- **MS-ESS3-4** - Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems

# Background Information

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## Articles

**Vitale, Ami. "Warriors Who Once Feared Elephants Now Protect Them." National Geographic, 25 May 2017.**

Relationships between local communities and the wildlife around them have not always been on the best of terms. In northern Kenya, the Samburu people have had a tumultuous history with the elephants that also called this land home, but recently these communities have come together to rehabilitate orphaned elephants. In this article, Ami has documented some of the incredible results of this attitude shift and showcases some of the amazing people leading this effort at the Reteti elephant orphanage.

"Warriors Who Once Feared Elephants Now Protect Them." Photography, National Geographic, 25 May 2017, [www.nationalgeographic.com/photography/article/reteti-orphan-elephants-vitale](http://www.nationalgeographic.com/photography/article/reteti-orphan-elephants-vitale).

**Vitale, Ami. "What I learned documenting the last male northern white rhino's death." National Geographic, October, 2019.**

Another poignant highlight of Ami's work is her documentation of the death of Sudan, the last male northern white rhino. His death made the species functionally extinct, with only two living female northern white rhinos. Explore her account of how she became involved, how her images and story created an impact, and how this one.

Vitale, Ami. "What I learned documenting the last male northern white rhino's death." National Geographic, October, 2019, <https://www.nationalgeographic.com/animals/article/life-changing-lessons-of-the-last-male-northern-white-rhino>. animal's story is part of a much bigger human story.



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## Background Information

### Films and Video

#### **Remembering Sudan, the Last Male Northern White Rhino**

*Run time: 11 minutes, followed by a short discussion by Zacharia Mutai and filmmaker Ami Vitale*

Ami Vitale has been following the story of Sudan, the last male northern white rhino, from 2009 when he was returned to [Kenya's Ol Pejeta Conservancy](#) until 2018, when he sadly passed away. The short film Remembering Sudan documents the heartbreaking crisis facing the northern white rhinos and keepers like Zacharia Mutai, on Ol Pejeta Conservancy, who sacrifice so much to protect them. After Sudan's death in 2018, only two northern white rhinos remain, both females. Through Zacharia's story, Vitale explores efforts to protect these rhinos as well as the groundbreaking scientific developments aimed at bringing the species back.

Vitale, Ami, director. Remembering Sudan: The Last Male Northern White Rhino, 24 Apr. 2023, <https://vimeo.com/817728435>. Accessed 13 Oct. 2023. (This video on Vimeo requires a password: saverhinos)

#### **Shaba, a Film About Reteti Elephant Sanctuary**

*Run time: 12 minutes*

In the mountains of northern Kenya, a Samburu community is doing something that has never been done before, building a sanctuary for orphaned elephants to rehabilitate them back to the wild. The project is not just changing attitudes about elephants, it is changing attitudes about women too; the secret to the [Reteti Elephant Sanctuary's](#) success is the special bond between a group of women keepers and one special elephant named Shaba.

Vitale, Ami, director. Shaba. Vimeo, 7 Sept. 2023, <https://vimeo.com/599762319>. Accessed 13 Oct. 2023. (This video on Vimeo requires a password: matthews)

#### **Falling in Love with a Unicorn**

*Run time: ~16 minutes*

Listening to an inspiring TEDx talk from Ami about her work and how she wields her camera to amplify others' voices.

"Falling in Love With a Unicorn | AMI VITALE | TEDxBergamo." YouTube, TEDx Talks, 20 May 2019, <https://www.youtube.com/watch?v=00bunXTIKJw>. Accessed 13 Oct. 2023.

#### **Behind the Scenes at Reteti Elephant Sanctuary**

*Run time: 5 minutes*

Take a peek at the day-to-day lives of the elephants and their caretakers at Reteti Elephant Sanctuary through this footage shot by Ami. Get a glimpse into a powerful story of community.

Vitale, Ami, director. Behind the Scenes at Retetei Elephant Sanctuary. Vimeo, 12 Aug. 2019, <https://vimeo.com/353382014>. Accessed 13 Oct. 2023.

## Background Information

### Websites

#### **Reteti Elephant Sanctuary**

The sanctuary, located in northern Kenya, takes in orphaned and abandoned elephant calves with the aim to release them back into the wild herds adjoining Reteti. Elephant calves in Northern Kenya are orphaned or abandoned due to drought, man-made wells, human-wildlife conflict, and natural mortality Reteti is the first community owned and run elephant sanctuary in Africa.

"Home." Reteti Elephant Sanctuary in Kenya, [www.reteti.org/](http://www.reteti.org/). Accessed 3 Nov. 2023.

#### **BioRescue Project**

A group of scientists who are working on a project using in-vitro fertilization and stem-cell research to explore if it's possible for the northern white rhino to make a comeback, even with only two living females remaining.

"BioRescue: Developing Advanced Reproductive Technologies." *Biorescue*, 4 Apr. 2022, [www.biorescue.org/](http://www.biorescue.org/). Accessed 13 Oct. 2023

#### **Elephant Voices**

A general informational resource on elephants that also contains a visual and auditory library of African elephant behavior and communication.

Welcome to ElephantVoices. ElephantVoices, 2023, <https://www.elephantvoices.org/>. Accessed 13 Oct. 2023.

#### **Exploring by the Seat of Your Pants**

Bringing those on the frontlines of science, exploration, conservation, and adventure live into classrooms through virtual guest speakers and field trips. Videos relevant to Ami's work include

Vitale, Ami. "Ami Vitale | Extreme Conservation." Youtube, uploaded by Exploring By The Seat Of Your Pants, 28 May 2021, [https://www.youtube.com/watch?v=p189g\\_ao-ks](https://www.youtube.com/watch?v=p189g_ao-ks). Accessed 14 Oct. 2023.

"Live from Ol Pejeta Conservancy | Extinction." Youtube, uploaded by Exploring By The Seat Of Your Pants, 29 May 2021, <https://www.youtube.com/watch?v=le2xKaHPycE>. Accessed 14 Oct. 2023.

Geoffrey, Nachamada. "Nachamada Geoffrey | Saving Nigeria's Largest Elephant Population." Youtube, uploaded by Exploring By The Seat Of Your Pants, 29 May 2021, <https://www.youtube.com/watch?v=le2xKaHPycE>.

#### **Project WILD**

Project WILD is an interdisciplinary conservation and environmental education program by the Association of Fish & Wildlife Agencies that focuses on wildlife and habitat. It is one of the largest wildlife education programs in the world. The goal of Project WILD is to develop awareness, knowledge, skills, and commitment resulting in informed decisions, responsible behavior, and constructive actions concerning wildlife and the environment.

Association of Fish & Wildlife Agencies. Project Wild K12 Guide. 2022, <https://www.fishwildlife.org/projectwild/project-wild>.

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Links to all websites can be found on the reference page at <https://bit.ly/amivitalemedia>



# Activities

Check out these activities and lessons to prepare your students for the event.

## Elephant Field Book

**Target audience: Grades 5-8**

**"Field Book Activity: Making and Recording Observations."** National Museum of Natural History, Smithsonian Institute, <https://naturalhistory.si.edu/education/teaching-resources/life-science/field-book-activity-making-and-recording-observations>.

Create a field book entry on African elephants using videos from the **Reteti Elephant Sanctuary's** instagram

**"Reteti Elephant Sanctuary."** Instagram, [www.instagram.com/r.e.s.c.u.e/](http://www.instagram.com/r.e.s.c.u.e/).

**Accessed 23 Oct. 2023.**

### A few video suggestions:

Reteti Elephant Sanctuary [@r.e.s.c.u.e].

Video of baby elephant. Instagram, recorded by The Daily James [@thedailyjames], 13 Jul. 2023, <https://www.instagram.com/p/CupoqH6IEVu/>. Accessed 14 Oct. 2023.

Reteti Elephant Sanctuary [@r.e.s.c.u.e].

Video of Reteti Run on World Environment Day. Instagram, 5 Jun. 2023. <https://www.instagram.com/p/CtHoWeYIOAR/>. Accessed 14 Oct. 2023.

Reteti Elephant Sanctuary [@r.e.s.c.u.e].

Video of elephant dust bath. Instagram, recorded by The Daily James [@thedailyjames], 19 Apr. 2023, <https://www.instagram.com/reel/CrOxYgylrwr/>. Accessed 14 Oct. 2023.

Reteti Elephant Sanctuary [@r.e.s.c.u.e].

Video of rewilding elephants. Instagram, 29 Mar. 2023, <https://www.instagram.com/reel/CqY71CuoV3I/>. Accessed 14 Oct. 2023.

Reteti Elephant Sanctuary [@r.e.s.c.u.e].

Video of adoption update. Instagram, 21. Nov. 2022, <https://www.instagram.com/reel/ClPZCu7qt7q/>. Accessed 14 Oct. 2023.

### Or this video from ElephantVoices

"Meet elephant Joaquim and friends in Gorongosa National Park." Youtube, uploaded by ElephantVoices, 27 May. 2017, <https://www.youtube.com/watch?v=XqIYHFXQzJY>. Accessed 14 Oct. 2023.

Encourage students to look closely and record their observations of the elephants' behaviors and adaptations in a field book entry. They can write down what they see, make sketches, and record questions.

### Questions to consider for facilitating discussion:

- What do you notice?
- What unique adaptations do elephants have?
- What are these elephants doing?
- How do they interact with each other?
- What questions come to mind when you watch these elephants?



All activity links can be found on the reference page at <https://bit.ly/amivitalemedia>

## Activities

### **What Does it Mean to be Endangered?**

#### **Target audience: Grades 5-8**

The IUCN Red List of Threatened Species. *International Union for Conservation of Nature and Natural Resources*, 2023, <https://www.iucnredlist.org/>.

#### **Introduce students to the IUCN Red List of Threatened Species,**

a system for classifying species at high risk of global extinction. Species are divided into categories, including Least Concern, Near Threatened, Vulnerable, Endangered, and Critically Endangered. Students can explore this website and use it to research elephants [African savanna elephant, African forest elephant, Asian elephant], rhinos [white rhinoceros, black rhinoceros, Sumatran rhinoceros, Indian rhinoceros, Javan rhinoceros], and giant pandas (italicized species will be most relevant to Ami's presentation).

Afterward, they might also use this website to research an animal they are particularly interested in and report on their findings.

Additionally, by clicking on the 'Population' tab on each species' page, students can obtain information about how that species' population has changed over time. Some pages also have a 'Supplementary Information' link in this section with additional data. Students can practice graphing these data points over time to visualize population changes. Then, they can compare their population graphs with dates of significant conservation actions and look for correlations and trends.

#### **Visit the World Wildlife Fund Species Fact Sheets,**

If the IUCN website's densely packed information is challenging for your students to navigate, they might instead look up these animals using World Wildlife Fund species fact sheets, including the white rhino, African elephant, and giant panda. Similarly, students can also use the World Wildlife Fund website to research a different animal they are interested in and report out.

"White Rhino | Species | WWF." World Wildlife Fund, <https://www.worldwildlife.org/species/white-rhino>. Accessed 9 Nov. 2023.

"African Elephant | Species | WWF." World Wildlife Fund, <https://www.worldwildlife.org/species/african-elephant>. Accessed 9 Nov. 2023.]

"Giant Panda | Species | WWF." World Wildlife Fund, <https://www.worldwildlife.org/species/giant-panda/>. Accessed 9 Nov. 2023.

Species | WWF." World Wildlife Fund, <https://www.worldwildlife.org/species/>. Accessed 9 Nov. 2023.

## Activities

### **A Picture is Worth a Thousand Words: Interpreting Ami's Photos**

**Target audience: Grades 5-8**

Show your students the following photographs of Ami's. Lead them through close looking and interpretation of the photos using the following questions.



- What do you notice in this photograph? Gather observations from students.
- What do you think is going on? Encourage students to make connections and educated guesses. Who do you think this person is?
- What else do you wonder about what's going on in this image?
- *Reveal the context of the photograph: This is a baby elephant named Mantasian with keeper Mary Lengees at the Reteti Elephant Sanctuary in northern Kenya. The sanctuary is changing the lives of both elephants and people. This extraordinary group does so much to rescue, rehabilitate, and rewild elephant calves that are orphaned as a result of drought, human-wildlife conflict, natural mortality, and in rare cases, poaching. Lengees and most of the team at Reteti were recruited from the local community and are deeply devoted to caring for these animals.*

All activity links can be found on the reference page at <https://bit.ly/amivitalmedia>

## Activities



- What do you notice in this photograph? Gather observations from students.
- What do you think is going on? Encourage students to make connections and educated guesses. Why do you think the person is wearing a panda costume? Why is he holding a young panda?
- What else do you wonder about what's going on in this image?
- *Reveal the context of the photograph: In 1990, the global wild panda population was approximately 1,100 individuals, and the International Union for Conservation of Nature classified them as endangered. Thanks to massive Chinese and international efforts, though, the bears rebounded, and in 2016 their status was upgraded to vulnerable. Today there are more than 1,800 pandas in the wild, and efforts to protect them and restore the species continue.*

*To reach this point, researchers have been working for over 30 years on breeding and releasing pandas to the wild and protecting their habitat. At the Wolong China Conservation & Research Center for the Giant Panda captive-bred bears training for life in the wild are kept relatively sheltered from human contact. After one generation in captivity, pandas forget how to be wild. They don't even know to run from predators.*

*To combat this, the center is training the young pandas how to survive in the wild. Panda keepers must wear panda costumes so the young pandas do not become familiar with humans before they are sent back into the wild. And because pandas use smell more than sight, the costumes are scented with panda urine.*

*Thanks to these dedicated efforts, China may be on its way to successfully saving its most famous ambassador and in the process put the wild back into an icon.*

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## Activities



- What do you notice in this photograph? Gather observations from students.
- What do you think is going on? Encourage students to make connections and educated guesses. Who do you think these people are? What do you think is happening with this rhino?
- What else do you wonder about what's going on in this image?
- *Reveal the context of the photograph: A group of young Samburu warriors touch a black rhino for the first time in their lives, at the Lewa Wildlife Conservancy, in northern Kenya. Black rhinos are almost extinct in Kenya. This young calf had been orphaned when poachers killed its mother, and was hand-raised at Lewa from the time it was one-day old. It liked human contact so it welcomed the touch. However, unless a wild animal has been orphaned or born in captivity, it is not good to touch them because it can put them in danger in a variety of ways. They may get too accustomed to humans and not react properly when approached by dangerous humans, the oils on your hands may be bad for them, your scent may cause other members of your species to reject them or a variety of other reasons. Most people in Kenya never get the opportunity to see the wildlife living around them, especially at such close quarters. Attention is often given to the effect of poaching on wildlife, but there is little focus on indigenous communities, who are on the frontline in the clash between poachers and armed game wardens.*

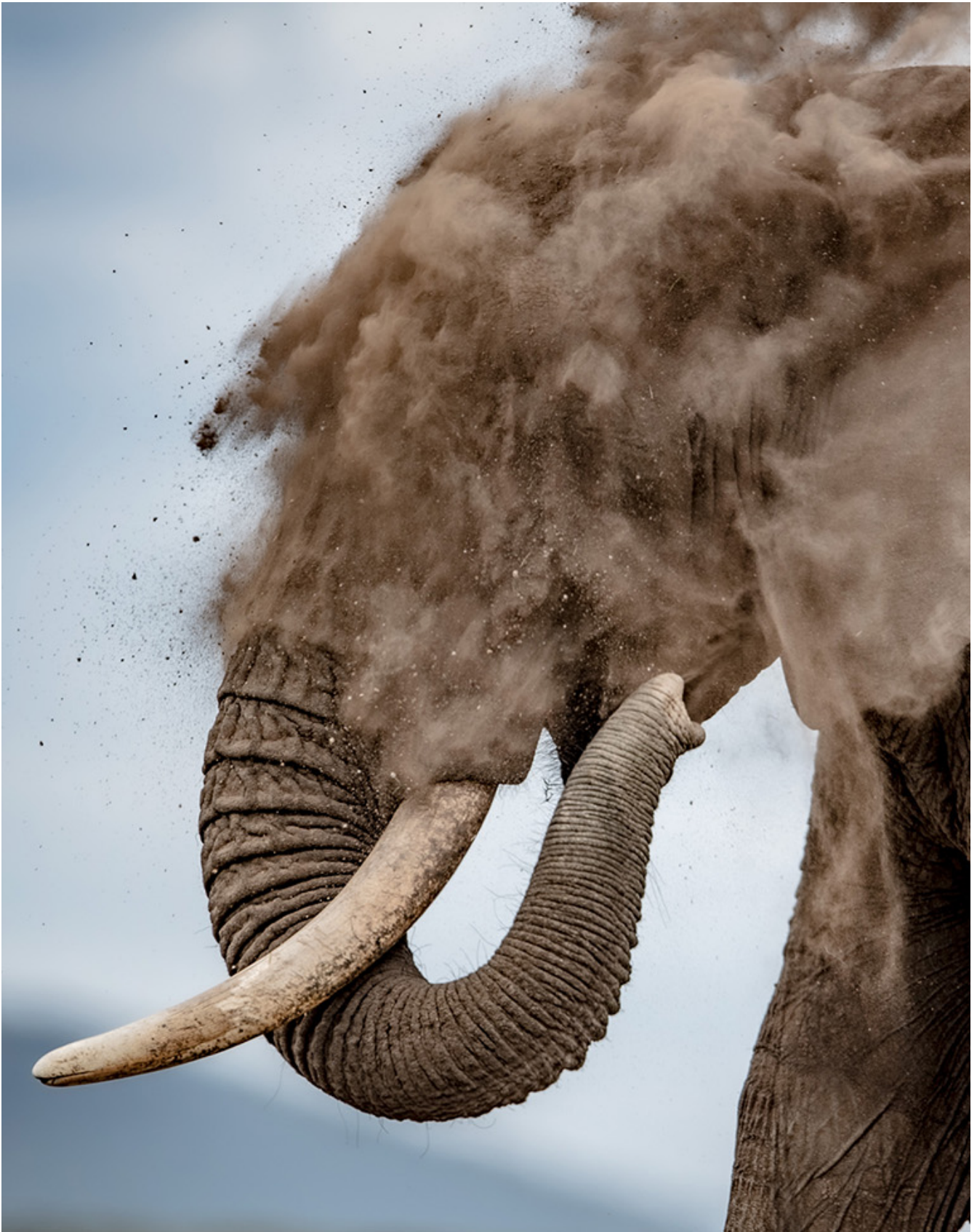
All activity links can be found on the reference page at <https://bit.ly/amivitalemedia>

## Activities



- What do you notice in this photograph? Gather observations from students.
- What do you think is going on? Encourage students to make connections and educated guesses. Who do you think this person is? What do you think is happening with this rhino?
- What else do you wonder about what's going on in this image?
- *Reveal the context of the photograph: This is a photo of wildlife keeper Joseph Wachira comforting Sudan, the last living male northern white rhino on the planet, moments before his death on March 19, 2018 in northern Kenya. He died surrounded by love, together with the people who committed their lives to protecting him. Today there are only two remaining northern white rhinos and they are both female, making them functionally extinct. That means they can no longer reproduce babies on their own.*

*The photographer believes this photograph inspired people to take action. Since 2019, scientists from The Biorescue Project have already created 29 pure northern white rhino embryos using the eggs of one of the female rhinos and the frozen DNA from the deceased male rhinos. One day, they will be able to bring back the species by implanting these embryos into southern white rhino surrogates. Additional context for this photo can be found [here](#).*



## Activities

### **Read and Discuss:**

### **For orphaned elephants, friends may be key to stress relief**

*Target Audience: Grade 8*

#### **Learning Objectives**

Students will:

- Read and discuss an article about recent elephant research

#### **Student Outcomes**

After participating in this activity, students will be better able to:

- Determine a central idea of a text and how it is conveyed through particular details
- Explain some of the recent research that has been done to study orphaned elephants
- Reflect on how humans are impacting wildlife in both negative and positive ways

#### **Standards**

Aligns with:

- CCSS.ELA-Literacy.RST.6-8.2 - Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions
- CCSS.ELA-Literacy.RST.6-8.6 - Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text

#### **Materials**

- Daly, Natasha. "For orphaned elephants, friends may be key to stress relief." National Geographic, 14 Jul. 2022, <https://www.nationalgeographic.com/animals/article/for-orphaned-elephants-friends-may-be-key-to-stress-relief>.

#### **Vocabulary words**

- **Juvenile** - a young organism that has not yet reached its adult form
- **Hormone** - a chemical substance that acts like a messenger in the body. By traveling to different parts of the body, they help control how cells and organs do certain things
- **Peers** - a group of similar individuals of the same age or status
- **Poaching** - the illegal hunting or collecting of wild animals and plants

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The link for this Read and Discuss article can be found at <https://bit.ly/amivitalemedia>



**Procedure**

1. Give students a copy of the National Geographic article *For orphaned elephants, friends may be key to stress relief for them to read.*
2. Once everyone has finished reading, have students write down in their own notebooks their answers to the following questions.
  - a. What is the main message of the article?
  - b. What are you finding difficult to understand?
  - c. What is something you found interesting?
3. Pose the following 'check for understanding' questions to the class for the group to answer:
  - a. Q: What were the researchers measuring?
    - i. A: Levels of stress hormones in orphaned and non-orphaned elephants.
  - b. Q: Why is using elephant dung to collect data such a good method?
    - i. A: It's non-invasive, it doesn't involve any direct interaction between humans and elephants.
    - ii. Follow up question: Why is that a good thing?
      1. A: *Taking samples directly from the animal (by drawing blood or anything similar) brings humans and elephants very close together. Elephants are still wild animals and can be unpredictable, we wouldn't want them to accidentally hurt someone / direct contact especially with a more invasive medical procedure might risk accidentally hurting the elephant / etc.*
  - c. Q: What did the researchers expect to find?
    - i. A: That orphaned elephants would have higher levels of stress hormones because they are usually so close to their mother when they are young.
    - ii. Follow up question: What did they actually find?
      1. A: *That there wasn't a notable difference in the levels of stress hormone between orphaned elephants and non-orphaned elephants, as long as the orphaned elephants were able to live with other family members or their peers.*
  - d. Q: What could be done with the information that the researchers learned to make things better for elephants in the future?
    - i. A: Rescued elephants living in animal sanctuaries can be kept in social groups with their peers / if rescued orphaned elephants are released into the wild, rescuers have more information to help them find a good same-aged group for the elephant to join.

4. Ask if students still have unanswered questions related to something they found difficult to understand and clarify any challenging concepts.
5. Pose the following reflection questions and discuss:
  - a. What is the tone of this article? How does this article make you feel as a reader? What implications does this article have for the field of wildlife conservation?
  - b. How does Ami's photograph at the top of the article add to the experience of reading it? What impacts does photography have? How do images help us communicate?
6. If there are any remaining questions that are difficult to answer, encourage students to do their own research. Alternatively, encourage them to bring those questions to ask at the Speaker Series event.



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The link for this Read and Discuss article can be found at <https://bit.ly/amivitalemedia>



## Stay in Touch!

We would love to hear from you. Visit us on our website at [vitalimpacts.org](https://vitalimpacts.org), follow us on Instagram at [@vital.impacts](https://www.instagram.com/vital.impacts), and email us at [hello@vitalimpacts.org](mailto:hello@vitalimpacts.org) with any questions or ideas!

Did you recently attend a Vital Impacts Student Speaker Series event? As educators, we value your input on our education programs. We'd love to know more! Will you fill out a brief (5-7 minute) survey at <https://bit.ly/vitalsurvey?> As a thank you for your time, your verified survey will receive a \$10 Starbucks Gift Card.