

# **Conservation in the Classroom**

Helping Wildlife in a Changing Climate

October 27, 2021

1:30 pm EDT

Watch live on <u>Conservation in the Classroom</u> View recording on the <u>Wild Classroom YouTube channel</u>

Species all over the world are being affected by changes in weather and climate that are causing heat waves, drought, and flooding. During his livestream, Nikhil Advani will discuss what's causing these changes; how animals like one-horned rhinos, African penguins, and tigers are impacted; and what WWF and partners are doing to protect these species.

#### The presenter



Nikhil Advani Director of Climate, Communities, and Wildlife WWF-US

#### **BELL-RINGERS**

Help prepare your learners by introducing the topic with this reading sample and warm-up questions.

#### Read

Humans and wild animals face new challenges for survival because of climate change. More frequent and intense droughts, storms, and heat waves, as well as rising sea level, melting glaciers, and warming oceans can directly harm animals, destroy the places they live, and wreak havoc on people's livelihoods and communities. From polar bears in the Arctic to marine turtles off the coast of Africa, our planet's diversity of life is at risk from the changing climate. WWF is working to better understand how a changing climate impacts species, and we are developing and implementing solutions to help affected species adapt to these changes.

(Sources: <u>WWF Wildlife and Climate Change</u>; <u>Effects of Climate Change</u>)

#### Define

Explain what **climate change** is in your own words; describe what is happening and why.

# Brainstorm

Name three dangers that climate change creates for wildlife:

•



© Karine Aigner/WWF-US

# Predict

Describe one example of how you think an animal might **adapt** to impacts of climate change.



Planning to watch the event live? Write your question(s) for the presenter here:

#### INFORMATIONAL RESOURCES

Use these web articles and videos to provide background information to your learners on climate change and its impacts on wildlife.

- Web page: WWF Climate Initiative
- Web page: <u>Wildlife and Climate Change</u>
- Video: Camera Trap Spots Tiger Prey!
- Video: Building a Mound for One-Horned Rhinos in Nepal
- Online courses: <u>WWF Adapt</u>
- Web article: Improved Nesting, Management, and Monitoring for African Penguins in South Africa
- Web article: <u>Grassland Creation and Water Provision for Tiger Prey in Thailand</u>
- Web article: Creating Wildlife Corridors for Tigers in the Churia range, Nepal
- Web article: <u>Building Artificial Mounds for One-Horned Rhinos in Nepal's Chitwan</u> <u>National Park</u>

# HOW TO HELP

- Web article: Green Tips
- Web article: Fight climate change by preventing food waste
- Web article: What You Can Do to Fight Climate Change
- Web article: The good news about climate change



© Peter Chadwick / WWF

# ACTIVITIES

Check out these lesson plans to supplement the content from the event.

#### Climate Change and Biodiversity science activity

As part of the Living Planet Report for Youth toolkit, this activity challenges students to identify different factors that make species vulnerable to the impacts of climate change and how that impacts an ecosystem's biodiversity.

Grades 5-12



© Simon Rawles / WWF-UK



© Shutterstock / FloridaStock / WWF

#### Polar bear toolkit

Take a closer look at the causes of climate change and how the Arctic is being impacted at twice the rate of the rest of the world. In the activity, *What's the Connection?*, students will create cause-and-effect models to make the connection between energy use and polar bears.

Grades 3-5

#### Our Frozen Worlds discussion guide

The *Our Frozen Worlds* episode of the Netflix series *Our Planet* explains how climate change is affecting the fragile ecosystems of the poles. Use this discussion guide to further the conversation on how the wildlife species from these regions are impacted.

Grades 5-12



© Yulia Bogomolova / WWF-Russia

#### ASSESSMENTS

Conclude your teaching of climate change and its impacts on wildlife with these resources and fun assessment tools.

Wild Classroom "Climate Change" collection on Kahoot!

- Climate change 101
- How climate change affects wildlife
- Adapting to a changing climate

# Helping Wildlife in a Changing Climate worksheet (next page)

Use the worksheet on the following page as an assignment or quiz following the viewing of the *Conservation in the Classroom* event.

Answer key:

1) d

- 2) b
- 3) Building elevated soil mounds
- 4) Prey
- 5) a

6) They are more likely to be harmed by an event.

© Martin Harvey / WWF

7) more

8) c

9) Bike/walk/carpool instead of driving; plant trees; reduce energy use; reduce food and water waste

10) It will reduce the vulnerability of people and wildlife to climate change and build resilience to the effects of climate change, providing a better chance of survival in the future. WWF is creating wildlife corridors, building artificial mounds, improving habitats and nesting areas, restoring wells and water sources, increasing food availability, etc.



# Helping Wildlife in a Changing Climate

Answer the following questions after learning about the impact of climate change on wildlife. Some questions require you to circle the correct answer, while others will ask you to write your answer(s).

1. Climate change is caused by greenhouse gases getting trapped in our atmosphere. What human activities contribute to the release of these gases?

- a. Agriculture
- b. Deforestation
- c. Burning fossil fuels
- d. All of the above

2. Which of the following has not increased as a result of climate change?

- a. Drought
- b. Biodiversity
- c. Floods
- d. Extreme weather
- 3. How is WWF helping rhinos adapt to flooding?

4. Hotter temperatures and prolonged dry spells are endangering not only tiger habitat, but the habitats of their \_\_\_\_\_, such as deer and boar, as well.

5. Which of the following is NOT an extreme weather event affecting African penguins?

- a. Drought
- b. Heavy rainfall
- c. Heat waves
- d. Storm surges

6. Explain what it means for a species to be **vulnerable** to the impacts of climate change:

7. An animal with very specialized diet would be **more / less** (circle one) vulnerable to climate change than one with a widely varied diet.

- 8. Which of the traits below would make a species less vulnerable to changes in climate?
  - a. Small population size
  - b. Requires large amounts of water
  - c. Can tolerate a wide range of temperature
  - d. Has a low reproductive rate

9. Name three actions you can take to reduce the impacts of climate change on our planet and its wildlife:

•



10. Write a few sentences that explain why we must learn to **adapt** to climate change, and provide one example of how WWF is helping wildlife adapt:

© Martin Harvey / WWF