# Climate Change Supporting New Jersey Curriculum Mandates

#### Why Now?

New Jersey requires each board of education to provide instruction on climate change in the curriculum of elementary school, middle school, and high school students as part of the district's implementation of the New Jersey Student Learning Standards in Science. As New Jersey First Lady Tammy Murphy states, "The adoption of these standards is much more than an added educational requirement; it is a symbol of a partnership between generations."



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#### NEW JERSEY LESSON EXAMPLE The world's Indigenous peoples are key to protecting the

environment

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#### Why Newsela?

Between our constantly updating stream of vetted, real-world content and dedicated resources, Newsela Science can help teachers bring instruction on climate change into their classrooms with engaging, thoughtful lessons that include technical science content, while allowing students to look at science through an activism lens.

#### HIGHLIGHTS:

# Brings science to life for students

Engages students with science lessons that connect to their lives, with content and projectbased learning opportunities that expose students to realworld science issues.

#### Engages students in scientific thinking

Integrates science and literacy and get all students reading and writing like scientists, with standardsaligned content and activities that promote science and literacy skills.

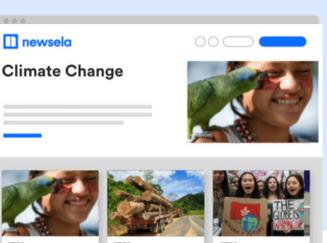
## Looks at science through an activism lens

The Science Change Makers Collection presents issues students care about through both an SEL and science lens, letting them look at local issues in a global context and inviting them to take action.



## Instructional supports for each article

Help teachers expand students' learning experience and engagement



#### AFFICLE he world's Indigenous peoples are key to protecting the environment

Understanding tropical deforestation

Students blame governments for inaction on climate change

#### Curations, Lessons, and Customizations

Teachers can use Newsela to teach to the standards and priorities of their school and district. Create custom activities, search for content by standard, curate Text Sets, and control the reading levels students see.

# Quizzes, Writing Prompts, and Assignments

Teachers can create and share customizable assignments and give students access to reading comprehension quizzes, customizable writing prompts, and annotations.

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# Example Lesson Sparks for Climate Change

### Understanding and Taking Action on Climate Change

Time to Complete: 45mins.

#### State Specific Context N.J.A.C. 6A:8-2.1

Each board of education shall provide instruction on climate change in the curriculum of elementary school, middle school, and high school students as part of the district's implementation of the New Jersey Student Learning Standards in Science.

#### **Standards Alignment**

**RI.2** Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

**3-ESS2-2** Obtain and combine information to describe climates in different regions of the world.

**4-ESS3-2** Generate and compare multiple solutions to reduce the impacts of natural Earth processes and climate change have on humans.

**MS-ESS3-5**. Ask questions to clarify evidence of the factors that have caused climate change over the past century.

#### Instructional Resources Before Reading

**Class Definition**: Have students define the word climate change. Have students share their definitions in an LMS discussion/chat room or through a platform like **flipgrid**, and require students to comment on each other's definitions by agreeing or disagreeing and explaining their opinion. Collect all the responses and synthesize a general class definition for students to agree or disagree on.

#### **During Reading Instructions**

**Problem and Solution**: Record information about the problems identified in the text and any potential solutions. Write your response to these solutions at the bottom.

#### After Reading

**Custom Write Prompt:** Have students respond to the following write prompt:

• Why is climate change happening and what action is being taken about it? How can learning about these issues and activists change the future?

**Climate Action Brochure:** Direct students to create an informational brochure or presentation that summarizes the causes and effects of tropical deforestation or research a different climate change problem. Regardless of their chosen format, each group's presentation must include:

- cited information from this lesson's Newsela articles and resources
- a summary of the causes and effects

• a list of potential solutions and current activists Each group should be prepared to present their brochure or presentation to the class.

#### Cross Curricular Resources Social Studies/Government Climate Change Discussion:

Students will read articles about climate change. Then, they will consider their own views on the role of government in addressing challenges faced by the nation and the world.

# Divide students into groups of 4; assign one of the following articles to each student:

- What exactly is causing crazy weather patterns around the world?
- Humanity will find ways to adapt to climate change
- U.N. presents ways to slow down problems caused by climate change
- Climate change warning is dire

**Class Poll**: Do you think the government is doing enough to address climate change? Allow an opportunity for students to make observations of the class responses. Ask for volunteers who answered "yes" and "no" to explain.



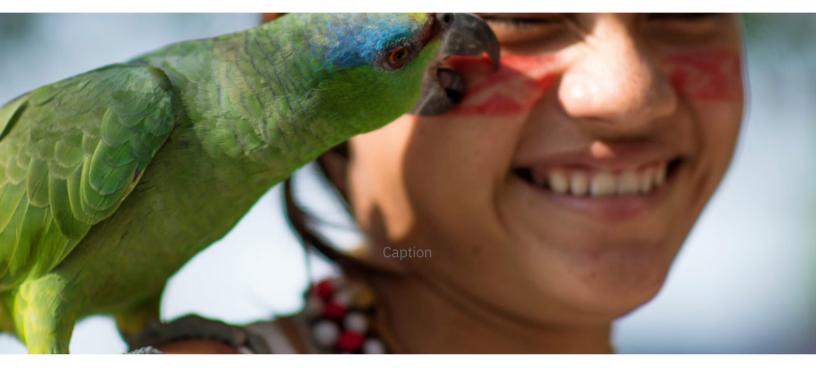
#### ARTICLE Arts & Culture

This article can be accessed at five different reading levels in English and Spanish.

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# The world's Indigenous peoples are key to protecting the environment

By Christian Science Monitor, adapted by Newsela staff Published: 07/20/2018 Word Count: 966 Recommended for: Upper Elementary School - High School Text Level: 5



A Kanbeba indigenous girl plays with a parrot in Tres Bocas village, on the bank of the Rio Negro (Black River), in the Amazonia, Brazil, in December 2015. Photo: Christophe Simon/AFP/Getty Images

Sometimes, it can seem like humans are separate from nature. Forests and oceans might be seen as places where only plants and animals live.

Many native peoples and groups think differently. Ancient Hawaiians, for example, saw humans as one with nature.

Some researchers hope to encourage people to live more sustainable lives in the long-term. Sustainability is the ability of both nature and humans to survive, thrive and adapt. There is proof that humans are using too many of the Earth's resources, such as trees and soil. Living sustainably means living in balance with nature so that these resources do not run out.

To do this, some experts say, we might need to rethink our relationship with nature.

#### Living "Greener"

It has long been believed that by educating people about the environment, they will change their behavior. Teach them not to litter, or to use less gasoline, and they will follow.

However, a recent study showed this might not be totally true.

Conservationists work to protect the environment. Wouldn't it make sense if these conservationists lived more sustainable, "green" lives?

The study showed they are living only slightly "greener" lives than people in other jobs. In other words, knowing about the environment does not mean you always take actions that are good for it.

Brendan Fisher, an environmental scientist in Vermont, helped lead the study. Fisher and others say these findings are an opportunity to learn. Conservationists can try new ways to get people to care about the environment.

#### Nature And Humanity Side By Side

Humans have always interacted with the natural world. Still, some groups see their relationship with nature differently.

The ancient Hawaiians believed nature and humanity were connected. They used that thinking in how they

managed resources. This method was called the ahupua'a system. It was designed more than 500 years ago to prevent overfishing and the loss of trees.

Kawika Winter oversees a botanical garden in Kauaʻi, Hawaii. Many Americans, he says, automatically believe that humans cause environmental destruction. Healthy ecosystems are seen as places without humans.

This thinking, of humans versus nature, can lead to people putting fences around natural spaces, Winter says. It can often make our individual actions to help the environment feel useless, too.

New approaches to conservation, however, could help fight this defeated attitude. Winter's research focuses on understanding people's needs as well as nature's needs, and how they fit together.

The key could be talking about people as the solution, he says.

#### "Health Benefits Of Nature"

Fisher notes that many government groups and schools are "starting to focus on the health benefits of nature." Walking outside can relieve stress and improve thinking, for example. Maybe this will become more normal. It could change how people



Lapakahi State Historical Park, where Hawaiian fishermen lived for centuries, on Big Island, Hawaii. Lapakahi State Historical Park is a large area of ruins from an Ancient Hawaiian fishing village in the North Kohala District on the Big Island of Hawaii. Offshore is the Lapakahi Marine Life Conservation District. The name lapa kahi means 'single ridge' in the Hawaiian Language, and applied to the ahupua'a, an ancient land division system. Photo: Sergi Reboredo/VW Pics/UIG via Getty Images

think of themselves as not against nature, but part of it.

Knowledge and education about our environment is still important, Winter says. Some researchers believe we should combine this with the environmental approach of native peoples.

"The good news is that there are cultures [that] have coexisted with forests for thousands of years and thrived," Winter says. "So what can we learn from that?"

Native, or indigenous peoples, are the descendants of the first people to live in a place. In the United States, Native Americans were present before European colonists and other settlers arrived. For many indigenous groups, the land they live on is crucial to their culture and even to their religion. Many of these groups have been living in harmony with nature for hundreds or even thousands of years.

Some of these communities already have strict fishing, hunting and farming practices. These practices work with nature, not against it.

Governments often overlook these practices when they make environmental laws, Winter says. This can lead to conflicts between indigenous communities and governments.

#### **Local Communities Help With Plans**

Alaka Wali works at the Field Museum in Chicago. Wali saw such tensions among rural populations in Peru. She studied a group that lives along the Amazon River.

In a study, Wali and her team found that Amazonian communities already knew quite a bit about natural resources. They had complex ways of managing them.

To maintain healthy river ecosystems, they fish only for certain species in certain lakes at certain times of year. They also avoid certain parts of the rain forest altogether. This ensures that animals have safe areas where they can thrive.

A recent study concluded that foresting methods of Hawaiian ahupua'a could be used by Kauaʻi's government.

Ashwin Ravikumar is an environmental social scientist at the Field Museum. Ravikumar and others worked with Amazonian community members. Together, they made plans for protecting the environment. Researchers found that native groups who were involved in these official protection efforts were more willing to help manage existing protected areas.

Native groups historically have been treated unfairly by governments and businesses. By proving they care for the environment, indigenous communities could have a better relationship with governments, Ravikumar says.



Newsela's content is published daily from trusted and vetted sources at 5 different reading levels. Teachers can find a wide range of Science and Social Studies resources to support instruction supporting New Jersey curriculum mandates.



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