

Name: _____

Due Date: _____

Article of the week

Before you read:		
Survey:	Question:	Predict:

While you read:

→ Mark your confusion.

→ Purposefully annotate the article (2-3 mature, thoughtful responses (I notice, I wonder, Questions, Connections, etc.) per page to what the author is saying)

→ Fill in Vocabulary annotations with your definitions using context clues.

Article

Annotations

Fires burning in the Amazon rainforest contribute to global warming

By The Washington Post, adapted by Newsela staff

Huge parts of the Amazon rainforest are ablaze. The area serves as the lungs of the planet by taking in carbon dioxide, storing it in soils and producing oxygen. Smoke from the widespread fires has turned day into night in São Paulo, Brazil, and **intensified** a controversy over the Brazilian government's land use policies.

The Brazilian Amazon has experienced 74,155 fires since January, according to data from Brazil's National Institute for Space Research (INPE). That's already an 85 percent increase from last year.

Intensified-

Name: _____

Due Date: _____

"There is nothing abnormal about the climate this year or the rainfall in the Amazon region, which is just a little below average," INPE researcher Alberto Setzer said. Speaking of the fires, he noted that the current dry season conditions make it easier for fires to spread, but it doesn't cause fires. "Starting a fire is the work of humans, either **deliberately** or by accident," he added.

The fires have covered São Paulo in dark smoke, and they are raising concerns about the rainforest, which is one of the most biologically diverse regions on Earth. There are fears that people may be trying to **transform** the land for agricultural use.

The European Union's Copernicus Climate Change Service provides information about climate change. According to the service, the fires have led to a clear spike in carbon monoxide emissions as well as planet-warming carbon dioxide emissions. Both types of emissions pose a threat to human health and worsen global warming.

Amazon Deforestation Has Increased This Year

INPE tracks deforestation in Brazil, and its data has shown a huge increase in the Amazon this year. In early August, INPE found that 1,330 square miles of rain forest had been lost since January, which is an area slightly bigger than the state of Rhode Island. The rate of forest loss is 40 percent higher than it was in 2018.

After those statistics were released, the news media began

deliberately-

transform-

Name: _____

Due Date: _____

covering the forest fires. This angered Brazil's president, Jair Bolsonaro. Bolsonaro, who favors increased agricultural and mining development in the Amazon, called those numbers "a lie," and then fired Ricardo Galvão, a physicist who served as the director of INPE.

The recent Amazon fires have been widespread, and some came on suddenly. In the state of Pará, an increase in wildfires occurred earlier in August and was linked to a call by farmers for a "day of fire" on August 10. INPE uses satellite-based sensors and other instruments to locate fires and track the amount of land burned. They recorded hundreds of fires in the state as farmers cleared land for agriculture and burned other parts of the rainforest for further development. Cleared rainforests in this region are typically used for farming cattle and growing soybeans, and the land is often cleared illegally.

One factor that has contributed to the increase in fires in the Amazon is the fact that it is the dry season there. It's the time of year when wildfires tend to break out from human activities. The dryness makes the environment particularly **vulnerable** to fires, but most of the blazes are started by people, either intentionally or by accident.

Still, this isn't even the peak of the fire season in Brazil, according to Mikaela Weisse. She works for Global Forest Watch, an organization that uses satellite images to track fires and deforestation. Weisse said most of the fires are taking place on cleared agricultural land, but satellites may be missing flames

Vulnerable-

Name: _____

Due Date: _____

hidden beneath tree canopies.

Fires Contribute To Global Warming

The fire season in Brazil peaks between August and October, Weisse said. So far, this year is already close to 2016's wildfire and tree cover losses. "It's early in the season, so what happens in the next couple of months is crucial for determining how significant this is," she said.

An increase in fires and deforestation in the Amazon make it difficult, if not impossible, for countries to **prevent** global warming.

The Amazon absorbs one-fourth of the 2.4 billion metric tons of carbon that our forests absorb each year. Currently, the Amazon absorbs more carbon than it releases. However, changing weather patterns, **deforestation**, tree loss and other factors are making it difficult for the Amazon to absorb as much carbon. The ongoing fires will continue to reduce the Amazon's ability to absorb carbon. If the Amazon were to start releasing more carbon than it absorbs, global warming would occur at a faster pace. There would also be a huge loss in species that are not found anywhere else on Earth.

Vitor Gomes is an environmental scientist at the Federal University of Pará in Brazil. This year, Gomes found that climate change could become a bigger threat to Amazonian tree species than deforestation within a few decades. His research pointed to a

Prevent-

Deforestation-

Name: _____

Due Date: _____

combination of effects related to climate change, such as increased dryness and deforestation to make way for agriculture. These effects could cause the loss of nearly 60 percent of the Amazon's tree species.

Without any effective climate policies or programs to limit deforestation, the study found that by 2050, the Amazonian lowland rain forest could be fragmented. This would make the Amazon far less capable of soaking in and storing carbon. The study warned that if we reach a certain point of climate change and deforestation, the forest won't be able to recover.

"According to the results of our studies, even in the 'best-case' scenario," Gomes said, "half of Amazonian tree species will be threatened in the future. The trends we've seen today could be beyond our 'worst-case' scenario."

Name: _____

Due Date: _____

After you read: Have a discussion about the article with a parent and have them sign here:

Answer the following questions using RACES:

1. What do researchers believe about how the fires started?
2. Why was Brazil's President upset about the news reports of the Amazonian Fires?
3. Does anything in this article surprise you? Explain If not, why not?

Name: _____

Due Date: _____

Write a 5+ sentence response to the question below using RACES strategy. Why is it important that we help save and preserve the Amazon rainforest?

This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the page.