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**EPISODE 5:**  
**Amazon Special—Can  
the Amazon Survive?**

**CHAPTER 1:**  
**A Threatened  
Global Treasure**

*Originally Aired:*  
*2/23/2020*

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### FOR DISCUSSION

Students can discuss or write about the following prompt:  
The Amazon rainforest includes nine different countries. Why do you think this episode focuses on the Amazon in Brazil?



### TERM TO KNOW—*Deforestation*

Human activity to cut down or clear the world's forests.

The main cause of **deforestation** is burning or cutting down forests for agriculture or for animals to graze. People 'slash and burn' forests to remove trees and sometimes these fires spread because of climate change. Loggers also cut down primal (ancient) rainforests for the lumber, palm oil, and rubber the trees provide.



### LINK TO ADDITIONAL SOURCE

Want to learn more about the Amazon? Check out [10 Amazing Amazon Facts!](#) to uncover cool information about the Amazon's geography, biodiversity, and the people who live there.

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**CHAPTER 2:**  
**‘Mother’ Amazon to  
Indigenous Youth**

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## FOR DISCUSSION

Students can discuss or ‘stop and jot’ about the following prompt:  
Maristela, an Arara youth, says, “We are worried because the forest is very important to us. The forest is our mother, she takes care of us, so we must take care of her...”

What do you think Maristela means about the Amazon being a ‘mother’ to the Arara people?



## TERM TO KNOW—*Indigenous*

Originating or occurring naturally in a particular place; native.

In Brazil, **indigenous** people’s ancestors were present centuries before colonization and settlement. Today they are a minority, around 0.5% of Brazil’s total population. They may have unique traditions, languages, and strong connections to natural resources.



## INVESTIGATIVE QUESTIONS

1. Jair Bolsonaro was president of Brazil during the 2019 Amazon fires. When he was campaigning to be president he said, “Where there is indigenous land, there is wealth underneath it.”
  - What might you predict about Bolsonaro’s actions in the Amazon from his statement?
  - How might his actions affect indigenous people?
2. Under his government, indigenous groups have lost protections to preserve their way of life in the Amazon. Research these lost rights. Determine how indigenous people of the Amazon used to have protection against:
  - Mining on their Amazon lands
  - Logging or burning their Amazon lands
  - Assimilation (forcing indigenous people to leave their way of life)

**Sources:** “Indigenous Peoples, Indigenous Voices Factsheet,” *United Nations Permanent Forum on Indigenous Issues*, [www.un.org/esa/socdev/unpfiil/documents/5session\\_factsheet1.pdf](http://www.un.org/esa/socdev/unpfiil/documents/5session_factsheet1.pdf). Accessed 22 September 2020.

Londoño, Ernesto and Shasta Darlington, “Jair Bolsonaro Wins Brazil’s Presidency, in a Shift to the Far Right,” *New York Times*, 28 October 2018. [www.nytimes.com/2018/10/28/world/americas/jair-bolsonaro-brazil-election.html](http://www.nytimes.com/2018/10/28/world/americas/jair-bolsonaro-brazil-election.html). Accessed 22 September 2020.

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**CHAPTER 3:**  
**Amazon Populations:  
Humans Increase as  
Trees Decrease.**

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**TERM TO KNOW—*Deregulation***

A government policy to lift restrictions (rules) on industry.

Brazil **deregulated** development in the Amazon. Previously, regulations protected the trees and indigenous communities of the Amazon. With **deregulation**, deforestation has grown as the government allows land to be cleared for agriculture, ranching, logging, and mining.



**INVESTIGATIVE QUESTIONS**

Examine this series of [NASA satellite photos from 2013-2018](#) several times.

- What changes do you observe?
- Why is the landscape of the Amazon changing during this period?
- What do you think will happen to the land that is cleared for cattle in five years? In ten years?



**ACTION ITEMS**

Think about the cooking oils that come from soybeans, cottonseed, and palm grown in the Amazon. Or the fast-food hamburgers made from beef. Or the ethanol fuel we use in our cars that comes from sugar cane. Or the leather shoes or bags that come from cattle grazed in the deforested Amazon.

1. Research which companies buy produce from Brazil’s Amazon region.
2. Write a letter or an email to the company’s CEO and urge them to stop deforestation and pledge to boycott products from deforested areas in the Amazon.

**Sources:** “Making Sense of Deforestation Patterns,” *NASA Earth Observatory*, [earthobservatory.nasa.gov/images/145888/making-sense-of-amazon-deforestation-patterns](http://earthobservatory.nasa.gov/images/145888/making-sense-of-amazon-deforestation-patterns). Accessed 22 September 2020.

“Luca Parmitano returns to the International Space Station.” *European Space Agency*, 21 July 2018, [www.esa.int/Science\\_Exploration/Human\\_and\\_Robotic\\_Exploration/Luca\\_Parmitano\\_returns\\_to\\_the\\_International\\_Space\\_Station](http://www.esa.int/Science_Exploration/Human_and_Robotic_Exploration/Luca_Parmitano_returns_to_the_International_Space_Station). Accessed 18 September 2020.

“Of chainsaws and supply chains: How big beef and soya firms can stop deforestation,” *The Economist*, 11 June 2020. [www.economist.com/the-americas/2020/06/11/how-big-beef-and-soya-firms-can-stop-deforestation](http://www.economist.com/the-americas/2020/06/11/how-big-beef-and-soya-firms-can-stop-deforestation). Accessed 22 September 2020.

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**The Heart and Lungs  
of the World**

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### **TERM TO KNOW—***Hydrological Cycle*

The process of recycling water from trees into the atmosphere.

The Amazon takes in and pumps out water into the atmosphere. This excess moisture becomes clouds formed by the water vapor and rain throughout the region. With 400 billion trees cycling water, that creates a lot of rainfall—even reaching the United States.



### **INVESTIGATIVE QUESTION**

How does deforestation in the Amazon contribute to droughts in the United States' Midwest region? Investigate.



### **WRITING PROMPT**

In this segment the International Space Station commander for Expedition 61, Luca Parmitano, remarked about seeing the Amazon forest fires all the way from space. He posted images to Twitter with the hashtag: “noPlanetB.”

1. He says, “We have no option B.” What do you think this means?
2. What hashtag could you create to share Parmitano’s warning about fires in the Amazon?

**Sources:** Ortiz, Eric, “How the Amazon’s fires, deforestation affect the U.S. Midwest,” *NBC News*, 25 August 2019, [www.nbcnews.com/news/world/how-amazon-s-fires-deforestation-affect-u-s-midwest-n1045886](http://www.nbcnews.com/news/world/how-amazon-s-fires-deforestation-affect-u-s-midwest-n1045886). Accessed 22 September 2020.

“Resource Library, Encyclopedic Entry: Deforestation,” *National Geographic*, [www.nationalgeographic.org/encyclopedia/deforestation/](http://www.nationalgeographic.org/encyclopedia/deforestation/). Accessed 22 September 2020.

“Trees and the Hydrological Cycle,” *Amazon Aid Foundation*, [amazonaid.org/resources/about-the-amazon/the-hydrological-cycle/#:~:text=Trees%20and%20the%20Hydrological%20Cycle,a%20process%20known%20as%20transpiration](http://amazonaid.org/resources/about-the-amazon/the-hydrological-cycle/#:~:text=Trees%20and%20the%20Hydrological%20Cycle,a%20process%20known%20as%20transpiration). Accessed 22 September 2020.