

Grades: 4-5

SciGirls, “Asombrosos Arboles - Terrific Trees”

This series showcases bright, curious real girls putting science and engineering to work as they answer questions and make unexpected discoveries in the world around them.

The majestic big trees of Puerto Rico catch the attention of SciGirls in San Juan. Isabel, Gabriela and Karla explore the benefits that big trees bring to their ecosystems, comparing trees in the rain forest and the city.

After watching this episode, choose from the following questions and/or tasks to extend your learning

Question Box 1

Plan

- How are trees an important part of our ecosystem?
- What differences do the SciGirls notice about big trees in the city and big trees in the forest?
- What data do the girls decide to collect?

Data

- How do the girls collect data from trees in both locations?
- How do they record the data collected?

Data Analysis

- What do the girls discover from the data?
- What are the differences between city trees and trees found in the forest?
- How does taking photographs help the girls to understand how old the trees are?
- What information collected is surprising to the girls? Why?
- What is the importance of trees to the air? animals? temperature? the environment?

Share

- How do the girls share their information about the importance of trees?
- What do they want others to learn from their results?
- How do the posters the girls create represent what they've learned?
- Summarize what the girls learn from the ecologist and the biologist in this episode?

Question Box 2

- If someone else were looking at this program, what might they learn?
- What is one thing I would like to add to this topic?
- What would you change about this program?

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- If a part 2 of this program was created, what you like them to focus on?
- What would you like to research for extra credit? Why?
- Do you think researching the trees was a worthwhile task for the SciGirls? Why or why not?
- What do you think their motivation was? In other words, why do you think they wanted to learn about the big trees?
- What was most challenging or least interesting about this program?
- What about the show stood out to you?
- What did you find most interesting and why?
- How much did you know about the subject before we started?
- How do you feel about this program? Why?
- What did you enjoy about this program?
- How does the title of this episode represent the importance of trees?
- Think about the trees in your own neighborhood, imagine what it would be like if the trees were gone. What changes would that make to your neighborhood?
- Think of all the ways that you benefit from the trees around you. Make a list.

Box 3 (Tasks)

- Research with evidence information about the “Big Trees”
- What specific benefits do the big trees provide?
- Compare and contrast the trees in the city with the rainforest trees. Use a graphic organizer to record specific details from the episode.
- Use your graphic organizer to compose a compare and contrast essay to share your new knowledge with your family.
- Research with evidence information about the “Big Trees”
- What specific benefits do the big trees provide? Make a brochure:
- [Benefits of Trees](#)
- Write an inequality that represents big trees defined at 20 inches in diameter at breast height (DBH).
- The crown of a tree is the approximate size of the root structure. Draw a model of a tree that would be considered a big tree. What are its dimensions? What would be the volume of the tree? How many of these trees could you plant in a square mile? Explain your reasoning.

Box 4 (Enrichment)

- Analyze the role the trees play in the environment in which they survive. Please make sure to provide your evidence.
- Compare and contrast the trees in your neighborhood to those in Puerto Rico.
- Learn more about the flora and fauna of the rainforest at https://www.fs.usda.gov/detail/elyunque/learning/kids/?cid=fsbdev3_042985. Create a visual display to showcase your new knowledge.
- Analyze the role the trees play in the environment in which they survive. Please make sure to provide your evidence.
- Compare and contrast the trees in your neighborhood to those in Puerto Rico.

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- [Trees Around the World](#)

Box 5 (Extend/Real-Life)

- What is the most common tree in your neighborhood and what role do they play in the ecosystem?
- There are careers in trees. Visit this page and review the four types of careers that involve working with trees. <https://www.cacareerzone.org/search/arborist>
- What is the most common tree in your neighborhood and what role do they play in the ecosystem?
- Test your tree knowledge: [Junior Arborist](#)