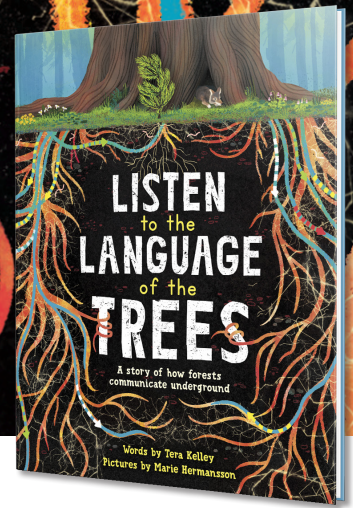


LISTEN TO THE LANGUAGE OF THE TREES

Words by Tera Kelley · Pictures by Marie Hermansson

EDUCATOR GUIDE



Created by Lisa Dugan

ABOUT THE BOOK

There is a fascinating fungi network that runs underground, through the roots of trees in the forest, allowing for connection and communication. Readers will discover that trees have their own social network to help each other survive and thrive.

This captivating book explores the real connection and communication that runs underground between trees in the forest. The well-researched details about trees' mycorrhizal network will help readers see that the natural world's survival depends on staying connected and helping others—just like us!

READERS WILL FIND:

- a beautiful story about our forests with scientifically accurate information
- educational back matter about this underground web of communication
- a nature book that supports social emotional learning



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ABOUT THE AUTHOR

TERA KELLEY grew up reading among the towering Douglas firs and pungent cedars of the Pacific Northwest. As a children's bookseller for six years, she watched kids race, skip, and crawl in the direction of the children's book section with the same eagerness she felt at that age. She is currently a freelance writer and editor in Northern California, where she works at a local library. Visit her at: terakelley.com

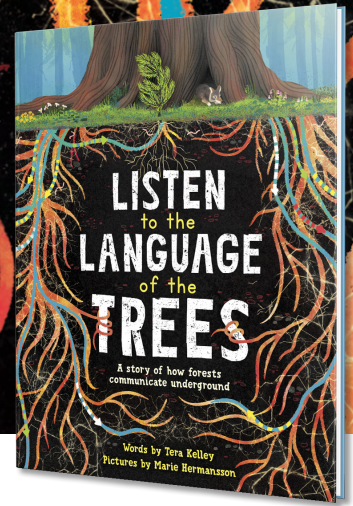
ABOUT THE ILLUSTRATOR

MARIE HERMANSSON is an illustrator and licensed artist with a passion for children's picture book illustration. She has been drawing and sketching since childhood and holds a degree in design. However, it wasn't until she had her own children that she made the decision to pursue an art career. Nowadays, you can find her illustrating children's picture books. Visit her at: mariehermanssonillustration.com

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NOTE:

The back matter in this book includes scientific information, as well as some excellent activities and discussion questions. This guide has been created to complement these exercises and information.

PRE-READING QUESTIONS AND ACTIVITIES

Introduce the title of the book, *Listen to the Language of the Trees*. What sort of language do students think trees have? What ways could trees communicate with each other? Next, read the subtitle: *A story of how forests communicate underground*. Did students guess that? How do they think trees communicate underground? Did students know that nonfiction can tell a story too?

Have students look at the cover. Do they see the small tree at the base of the big tree? What do they think the trees' intertwining roots mean? Why do students think the designers included a forest animal on the cover as well?

Before reading, do a "picture walk" through this book with students. Based on the illustrations, do students expect that this will be more like a storybook, or will it be nonfiction? Do any students think it could be both?

This book is about a young seedling growing up at the base of a large tree in a large forest. Through this story, readers learn how the trees in a forest communicate and interact with each other, thanks to fungi that connect their roots. What is fungi and what do students know about it? Where might they encounter fungi in their daily lives?

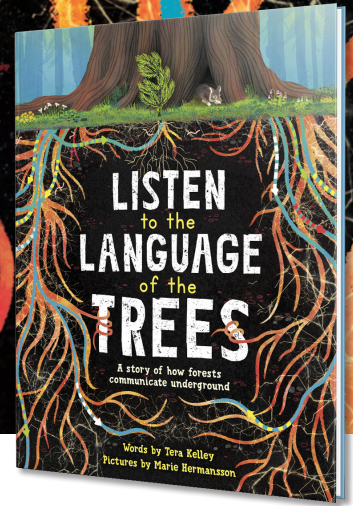
VOCABULARY

As you read the book, have students raise their hands when they hear a word that they do not know. Review the words or phrases and derive their meaning from context, consulting a dictionary if necessary. Create a classroom glossary for *Listen to the Language of the Trees* and have students practice using these new words.

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POST-READING QUESTIONS AND ACTIVITIES

WHAT ARE FUNGI

Discuss the differences between trees, animals, and fungi. According to the material in the back of the book, how are fungi like animals? How are they like plants?

TREE SAID, FUNGI SAID

Before reading this book, did students think trees could communicate with each other? Review the beginning of the book and its explanation of the role of fungi in this communication. Refer to the back matter for a scientific discussion of the mycorrhizal network. How is it similar to the way humans communicate? How is it different? How does knowing that trees communicate change the way students think about forests?

LOOKING AT THE DETAILS

The illustrations in this picture book are wonderful and bring the text to life. Break students into groups and assign each a spread for closer examination. Have each group present their illustration to the class, explaining how it helps tell the story and pointing out favorite details in the picture that others might have missed.

THE GIANT TREE

Review the book as a class and identify the ways that the giant tree helps the rest of the life in the forest. What does the giant tree do for the other trees? How does it help the animals? How do the illustrations show the reader the giant tree's role? What details does the text tell us?

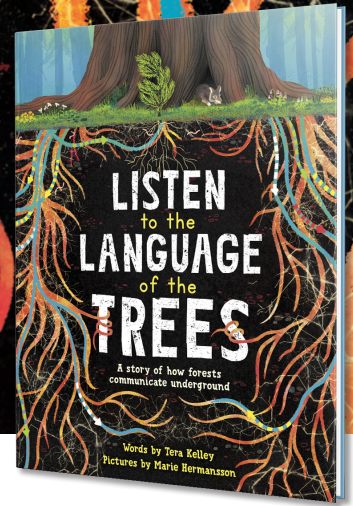
CHANGES

When the giant tree is hit by lightning, it loses a big branch. Come together as a class to discuss what happens next. How does that change the life of the seedling? Does it change the life of the giant tree?

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COMMUNITY OF LIVING THINGS

Share the dictionary definition of “community” with the class, and discuss what it means. The trees in the forest help each other, sending each other water, food, and even warnings of danger. Does this make the forest a community? How is the forest like a human community? How is it different?

THE FUNGI NETWORK

The network of fungi that connects the forest delivers nutrients, water, and messages from tree to tree. Come together as a class and review the illustrations that show the colored lines and symbols connecting the different trees in the forest. What do these illustrations tell the reader? What does each symbol stand for? What do the arrows represent?

BEFORE AND AFTER THE BEETLE INVASION

As a class, review the section of the book before the beetles attack the giant tree. What does the giant tree do to help the other trees in the forest? When the beetles attack, the giant tree sends out a warning. After the beetle invasion, what does the forest community do to help the giant tree? How do the illustrations show what is happening? Were students ever in a situation, or can they think of one, where people communicated and helped each other like the trees in this story?

ONOMATOPOEIA

Onomatopoeia is the use of a word that sounds like the thing it describes—like “crash” or “hiss.” Have students find illustrations in this book that include these “sound” words. Brainstorm to create a list of sound words. Have students pick their favorite and make a new illustration for the book incorporating the word. Create a classroom gallery with the illustrations.

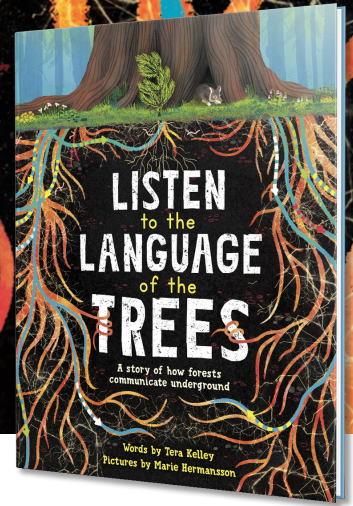
NEW ADVENTURES

Listen to the Language of the Trees is an example of a nonfiction picture book. As a class, discuss the difference between fiction and nonfiction. Working with an adult as necessary, have students write and illustrate a fictional story of a new adventure of the giant tree and the seedling.

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TREES AND FORESTS NEAR YOU

Take a field trip to a forest in your area. Have each student bring a sketch pad or notebook to record their observations and sketch the things they see. How is this forest like the one in the book and how is it different? When you get back to class, have students draw a picture of the forest, including a representation of the root system that shows how trees share resources and communicate.

ADDITIONAL RESOURCES:

PRONUNCIATIONS

How do you pronounce fungi anyway? According to the Merriam-Webster dictionary, it can be pronounced two ways. With a “J” sound—fun-jī—or with a hard “G”—fun-gī. Pronounced like “fun-guy” in American English but “fun-gee” in British English.

Once you’ve mastered that, the next one to practice is mycorrhizal—as in the mycorrhizal network, the web of fungi that connects the roots of trees. This one is pronounced: my-kuh-ry-zul.

VIDEO LINKS ABOUT THE MYCORRHIZAL NETWORK

There are many good resources online that talk about the science behind this book. Here are a couple of links to get you started:

From BBC World Service:

https://youtu.be/DUqEB_tGHtw

From National Geographic:

https://www.youtube.com/watch?v=7kHZ0a_6TxY

EXAMPLES OF ONOMATOPOEIA

This site lists a bunch of onomatopoeic words as background for classroom discussion:

<https://examples.yourdictionary.com/examples-of-onomatopoeia-for-kids.html>