

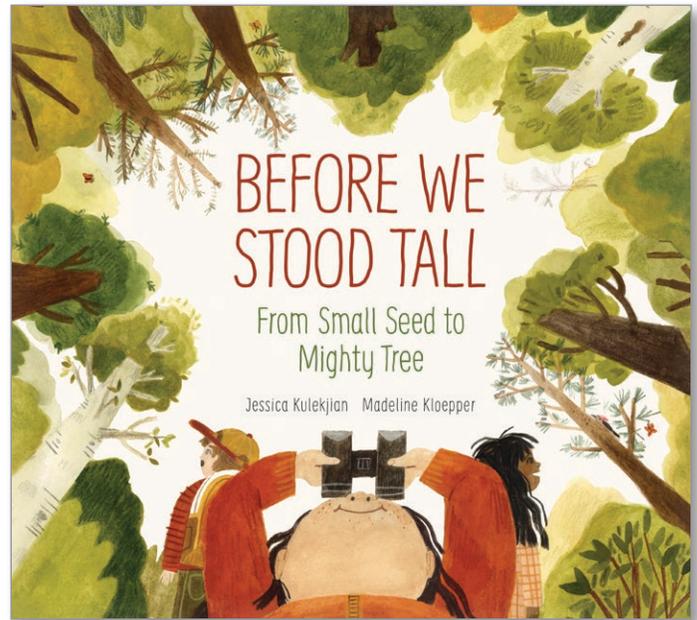
BEFORE WE STOOD TALL — TEACHING GUIDE

About the Book

Expressive text and art tell the story of the life cycle of trees as it has never been told before — in reverse.

Here's a lyrical depiction of the life cycle of trees, told one step at a time, based on newly researched information. The steps are described in simple but evocative text, each starting with "Before . . ." for a rhythmic telling. For example, "Before we stood tall, we clothed ourselves in bark and crowned ourselves in leaves, waving eagerly at the sun." Particular attention is paid throughout to what's happening underground and how that links all life in the forest. Beginning with mature giants, "mighty in the kingdom of trees," and ending with the promise of new life on the branches that are "hoping to be mighty in the kingdom of trees," it's a beautiful and loving celebration of the circle of life.

The material has been vetted by several scientists, including experts on trees, insects and mushrooms. Supported by well-researched back matter, the book has strong curriculum links to early elementary earth and life science topics, including plants, ecosystems and soil.



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About the Author

JESSICA KULEKJIAN spent her California childhood mostly outdoors — climbing trees, swimming and riding bikes into orchards where she invented stories with friends until the sun went down. She developed a deep

appreciation for the natural world each time she visited the nearby ocean and forests. As she grew, so did her love learning. Jessica studied creative writing and education in college and went on to earn her MA in teaching.

Today, Jessica works with homeschooling families through a local public school and writes in the early morning hours. Her passion for nature, free play, and learning inspires all her stories. Visit her website at www.jessicakulekjian.com.



About the Illustrator

MADELINE KLOEPPER grew up in the lower mainland of British Columbia and has a BFA from Emily Carr University of Art and Design. Her work is influenced by childhood, nostalgia

and the relationships we forge with nature. She has illustrated several books for children and lives in Prince George, British Columbia. Visit her website at www.madelinekloepper.com.



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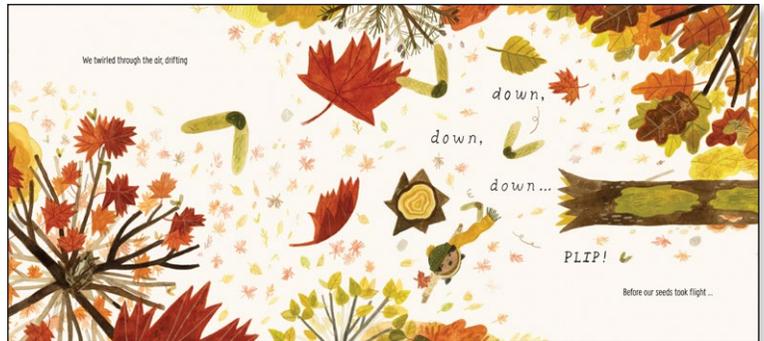
About this Resource

All of the following activities are designed for students in kindergarten to third grade. They can be adapted and differentiated for other grade levels and student needs. Common Core Standards and Next Generation Science Standards connections are listed below each section.

STEAM ACTIVITIES

These STEAM activities can be done before or after reading *Before We Stood Tall: From Small Seed to Mighty Tree*.

- Go on a seed-hunt walk. Collect/gather as many different kinds of seeds as you can. Then brainstorm as a group or write about what you notice. Ask students: How are the seeds the same? How are they different? What are you wondering? Make predictions about what kinds of plants or trees the seeds will grow into.
- Sketch the different seeds you collected. Add labels to the sketches to make a diagram.
- Make a **KWL Chart** about trees or forests or seeds. (See printable resource.)
- Draw or make a representation of the life cycle of a tree. Label as many parts as you can.
- If you are able, take your students to a place with trees. Ask students to write an observational piece about the trees. Ask them: What do you notice? Craft a list of questions or wonderings the students have about trees and forests.
- Use seeds and glue to make a seed mosaic. (Optional extension: Have students demonstrate something they learned through the reading of this book or work with trees and seeds with their seed mosaic.)
- Make a **Venn Diagram** comparing different seeds or different trees or different kinds of forests (for example, temperate vs. rain forests) after doing some research. How are they the same? How are they different? (See printable resource.)
- After examining the back matter, make a visual representation of the mycorrhizal network. Students could draw, paint, collage or come up with their own ideas!



NGSS STANDARDS

K-ESS2-2 Earth's Systems

Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

K-ESS3-1 Earth and Human Activity

Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.

2-LS2-1 Ecosystems: Interactions, Energy and Dynamics

Plan and conduct an investigation to determine if plants need sunlight and water to grow.

2-LS2-2 Ecosystems: Interactions, Energy and Dynamics

Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

2-LS4-1 Biological Evolution: Unity and Diversity

Make observations of plants and animals to compare the diversity of life in different habitats.

3-LS1-1 From Molecules to Organisms: Structures and Processes

Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction and death.

3-LS2-1 Ecosystems: Interactions, Energy and Dynamics

Construct an argument that some animals form groups that help members survive.

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WRITING ACTIVITIES

- Introduce point of view and personification (attributing human characteristics to nonhuman things) to the students. Have the students take on the perspective of a seed or a tree or a whole forest. Have them write in the voice of the natural object. Some questions for guiding the students' thinking: What is it like to be that thing? Ask students to use their senses: What do you see? What do you hear? What do you smell? What do you touch? (Optional extension: Do the activity again, this time taking on the voice of a different thing. Compare the pieces. How does the voice change? For example, if they were a seed in the first piece and a tree in the second, how does the voice change? If you are doing this with a class, split into smaller groups and build a tree's life cycle with the different pieces of writing. Have one student write as if they were seed, one as a sapling and one as a grown tree. Put these pieces together into mini-books.)
- Have students imagine what a conversation with a tree might be like. What would they say? What would the tree respond with? Have them write a piece using word bubbles. (See printable resource **Conversation with a Tree**.) (Optional extension: Have students imagine what a conversation between the mother tree and the other trees sound like through the mycorrhizal network. Have them write these ideas down in the word bubbles.)
- Discuss how the author uses pronouns throughout the text. Ask students: What do you notice about how pronouns are used?
- Using this book as a mentor text, write a piece using “before we were ...” as a refrain (e.g., *before we were monarch butterflies, before we were frogs, before we were second graders*).
- Discuss how the author used her research to create a lyrical, poetic nonfiction piece. Using this text as a mentor text, have students try turning nonfiction facts into a poem.
- After looking at the back matter, use the following question as a writing or discussion prompt: What can we, as people, learn from the mycorrhizal network?



COMMON CORE STANDARDS

CCSS.ELA-LITERACY.W.K.8

With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

CCSS.ELA-LITERACY.RL.K.7

With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).

READING ACTIVITIES

- Discuss if this book is fiction or nonfiction. How do they know? Ask the students to find evidence and present reasons to support their thinking and opinions.
- Examine the back matter in the book. Talk about why writers add back matter and its purpose as a nonfiction text.
- Discuss how the author invokes the readers' senses throughout the text.
- Compare the illustrations and the text. What scientific information can you see in the illustrations? (Optional extension: Use sticky notes to annotate the text with the different facts the students see in the illustrations.)
- Discuss why students think the author titled the book *Before We Stood Tall: From Small Seed to Mighty Tree*.
- Discuss the narrative voice. Who is telling the story? How do we know?



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COMMON CORE STANDARDS

CCSS.ELA-LITERACY.RI.K.10

Actively engage in group reading activities with purpose and understanding.

CCSS.ELA-LITERACY.RL.1.4

Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.

CCSS.ELA-LITERACY.RL.1.7

Use illustrations and details in a story to describe its characters, setting or events.

CCSS.ELA-LITERACY.RI.1.6

Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

CCSS.ELA-LITERACY.RI.1.7

Use the illustrations and details in a text to describe its key ideas.

CCSS.ELA-LITERACY.RL.3.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

CCSS.ELA-LITERACY.RI.2.5

Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.

MATH ACTIVITIES

Examine spread three in *Before We Stood Tall* and then create circular shapes out of paper in order to make blank tree cookies (tree cookies are cross sections of trees where you can see the rings). Have students draw tree rings on their tree cookies. Make sure they know how many they drew and write this number on the back of the circle. Then have students exchange their tree cookie with their classmates. Have students estimate how old they think the tree is. Students can explain their thinking behind their estimations with pictures words or a classroom discussion.



COMMON CORE STANDARDS

CCSS.MATH.CONTENT.2.NBT.B.9

Explain why addition and subtraction strategies work, using place value and the properties of operations.

CCSS.MATH.CONTENT.K.CC.B.5

Count to answer “how many?” questions about as many as twenty things arranged in a line, a rectangular array, or a circle, or as many as ten things in a scattered configuration; given a number from one to twenty, count out that many objects.

KWL Chart

Name: _____

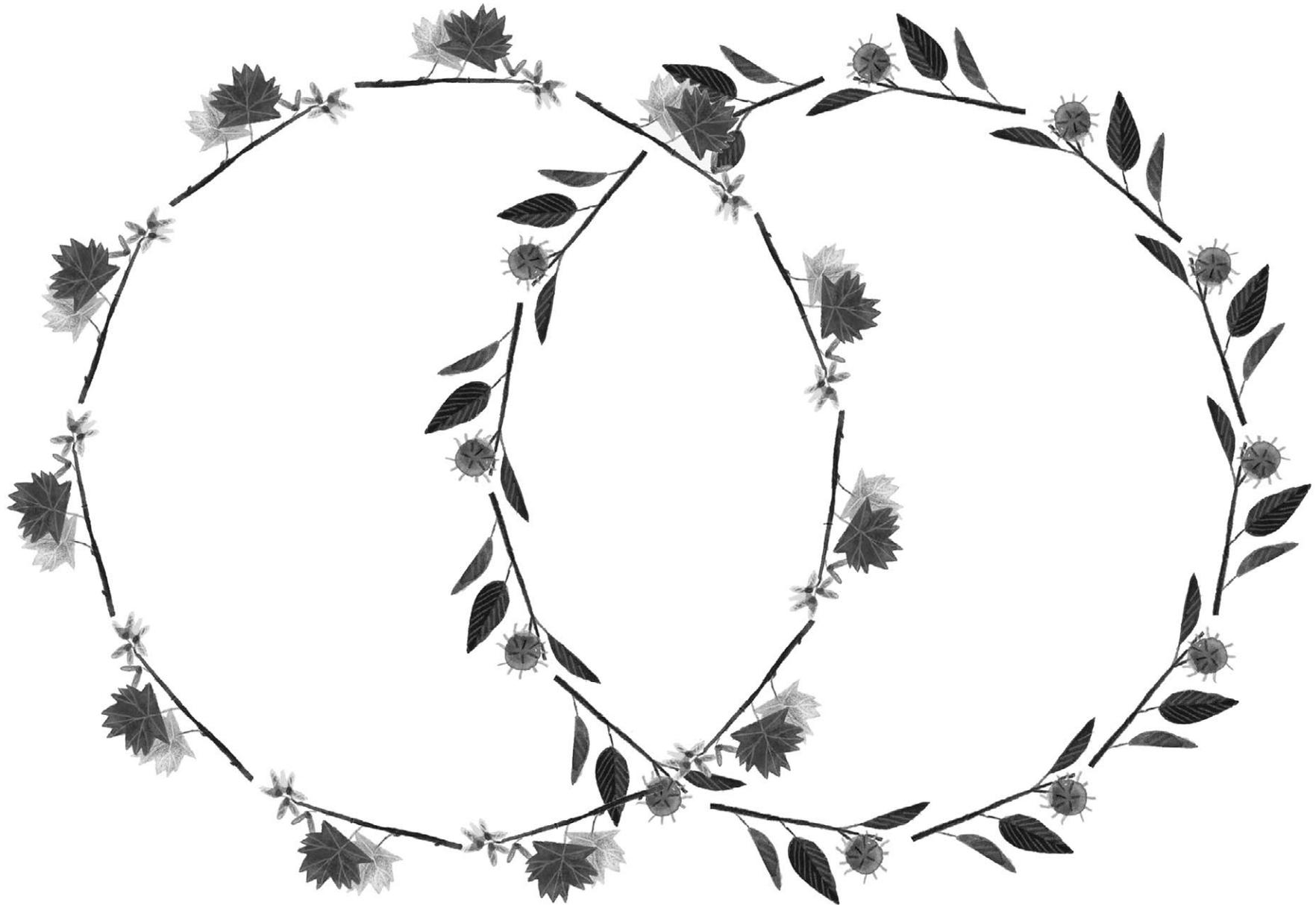
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I KNOW THAT ...	I WANT TO KNOW ...	I LEARNED THAT ...

Venn Diagram

Name: _____

Date: _____

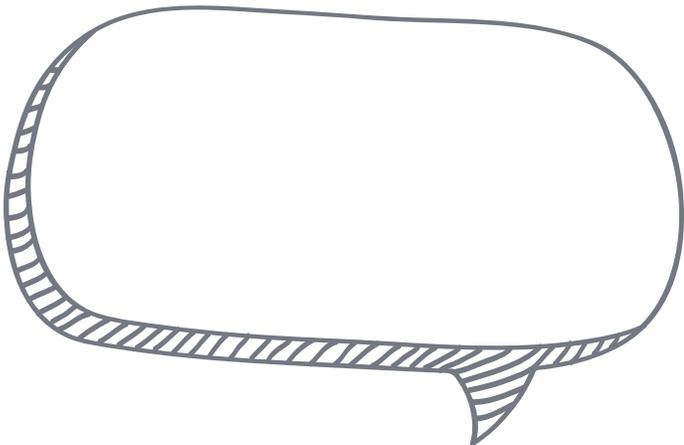
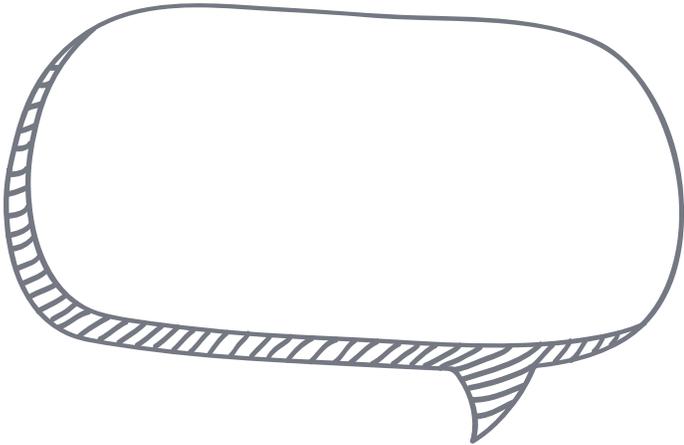
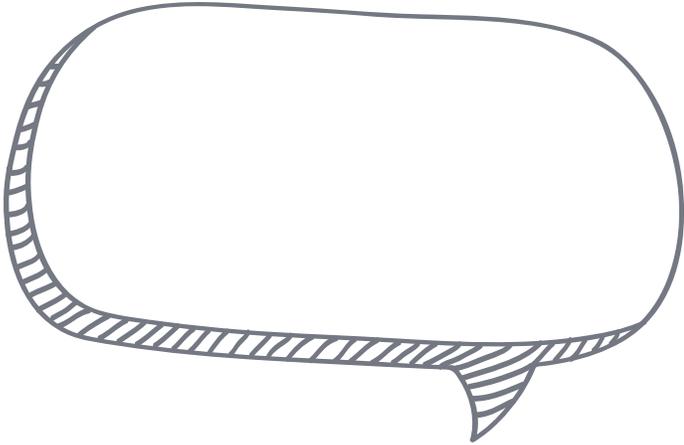


Conversation with a Tree

Name: _____

Date: _____

ME



TREE

