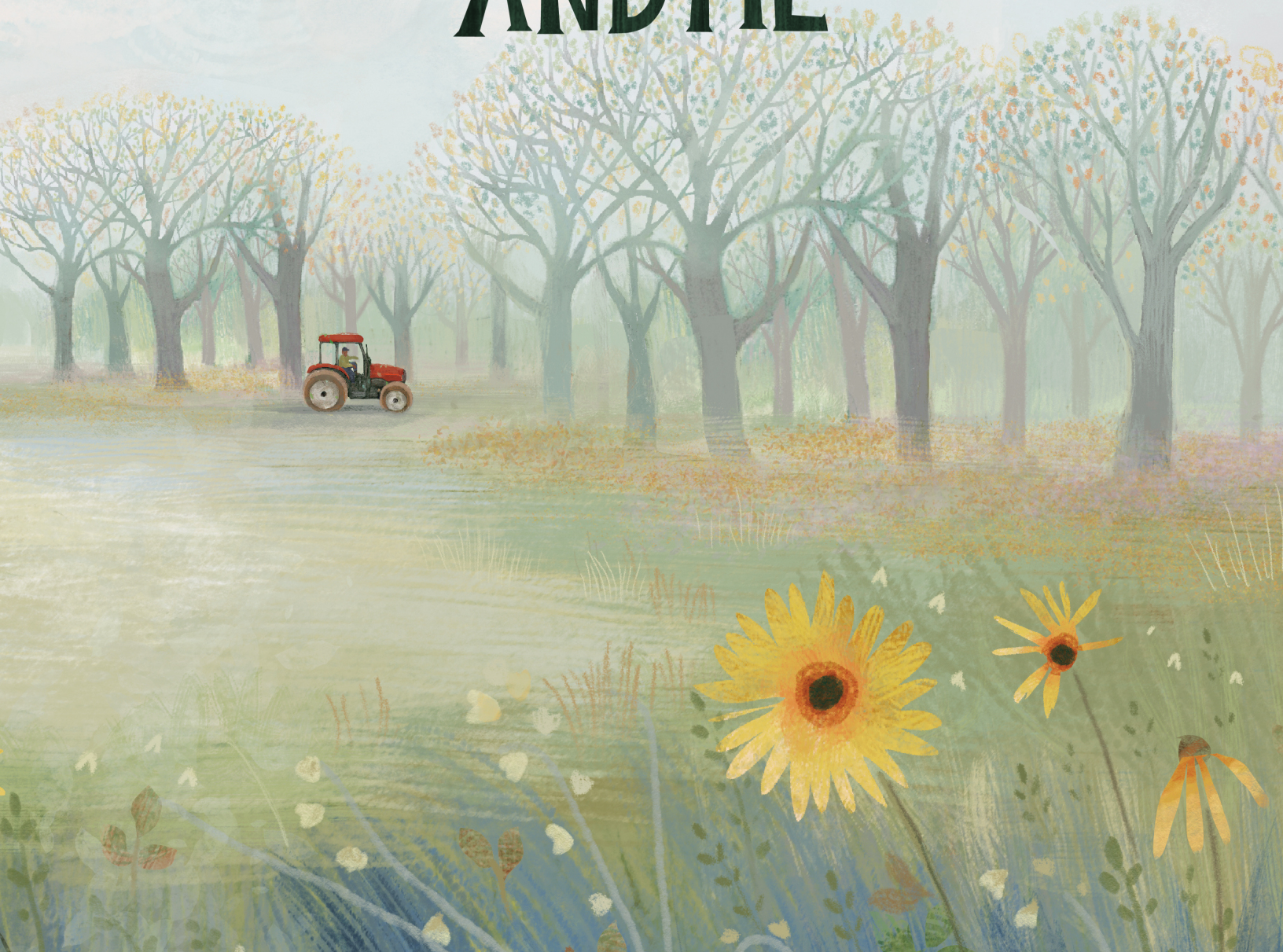


MY GRANDPA, MY TREE, AND ME



Written by Roxanne Troup

Illustrated by Kendra Binney

Publish by YEEHOO PRESS

TEACHER GUIDE

About the Book

MY GRANDPA, MY TREE, AND ME



Pecans are North America's only indigenous tree nut, and one of the United States' oldest export commodities. But how are these crops grown and harvested? *MY GRANDPA, MY TREE, AND ME* follows a young child's relationship with her grandfather through the seasons of caring for and harvesting pecans — both in a commercial pecan orchard and their own backyard.

Of all the trees in Grandpa's orchard, the one planted for his granddaughter is his favorite. She watches Grandpa care for each tree from winter pruning to spring feeding; summer tending to fall harvest. But her tree is set apart. She and Grandpa tend it together — and this year, their reward is even sweeter than pecan pie!

THEMES:

- Family ~ intergenerational relationships
- Agriculture ~ pecan farming
- Seasons ~ harvest and new life

SPECS:

- Ages 4-8
- Hardcover \$17.99
- ISBN-10: 1953458556
- ISBN-13: 978-1953458551

The Creators

ROXANNE TROUP

AUTHOR

Roxanne Troup grew up along the waterways of Missouri, where everyone had a pecan tree but few grew pecans commercially. Today, she lives in the mountains of Colorado (where no one grows pecans) and writes kid's books that celebrate wonder and family. With a background in education, Roxanne loves learning new things and sharing that knowledge with kids in engaging ways. When not writing, she enjoys hiking with her family and reading a good book. Roxanne often visits schools to water seeds of literacy and teach about writing. (And sometimes remembers to water the plants in her own garden.) Connect with her online at www.roxannetroup.com.



KENDRA BINNEY

ILLUSTRATOR

Kendra Binney was raised in a small mountain town with no shoe stores. She spent most of her time treading barefoot through the minuscule world of bracken, spiders, and all things hiding in the grass. She transfers this closeness with the small into her paintings. A self-taught artist and illustrator, Kendra lives and works around Portland, Oregon. She paints her landscapes and characters with pastel washes and resin coatings to create memorable, fragile realities. Visit her website to learn more: www.kendra-binney.com.

Pre-Reading

ACTIVITIES

This teacher guide is designed for students in kindergarten through fourth grade (though some activities may be appropriate for preschoolers). It offers cross-curricular and interdisciplinary activities to help teachers integrate *MY GRANDPA MY TREE AND ME* into the curricula, but it assumes that teachers will adapt each activity to fit the needs and abilities of their own students. All activities were created in conjunction with Common Core and other relevant learning standards.

01. PARTS OF A BOOK

Help students identify the basic parts of a book.

- Front Cover/Back Cover

Point out the title and read it aloud. Point out the other text on the cover. How are the text blocks different? What can each tell us about the book?

- Spine

Point out the title, creators, and publisher. Why do you think book makers put this information here?

- Jacket Flap

Read the text on the front jacket flap. What is its purpose? Read the text on the back jacket flap. What is its purpose?

- Title/Copyright Page

What information is available on these pages? Why is this information important?

02. MAKING INFERENCES

Direct students to look closely at the front cover and describe what they see.

- Where do you think this story takes place?
- Who are the characters?
- What are they doing?
- What might this story be about?
- What clues tell you these things?

Show students the under cover (under the dust jacket) and reevaluate.

- What new information does this cover provide?
- Have your inferences changed? Why?

Define inference.

Read the text on the front jacket flap.

- What more do you learn about the book?
- Does this text make you want to read the story? Why or why not?

Contents

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English Language Arts



03. VOCABULARY

The word *pecan* has several different (but correct) pronunciations including:

puh-kähn puh-kan pē-kan

How do you say *pecan*? Is that the same way everyone you know pronounces it?

Use the picture glossary in *MY GRANDPA, MY TREE, AND ME* and the attached vocabulary cards to learn agricultural terms. Find the terms/concepts in the story.

*pecan scab	*aphids
*harvester	*hopper
*fertilize	*irrigate
*cultivar	*dormant
*orchard	*prune
*fruiting	*growing season

05. THANK A FARMER

Everything we eat is grown or produced by hard-working farmers and ranchers like the family in this book. Read more picture books about where our food comes from (see [Feeding Minds Press](#) or the *Who Made My Lunch?* series from [Amicus](#)). Have your class write and mail thank you notes to a local farmer. Find farmers in your area through your state university extension office and/or your state's farm bureau. You can also send the notes to the [Ag Foundation](#), who will forward them on your behalf.

04. STORY STRUCTURE

Authors use different story structures to tell their stories. Identify the structure(s) used in *MY GRANDPA, MY TREE, AND ME* and discuss why the author may have chosen to use that structure for this particular story.

- seasonal
- compare & contrast

Compare & Contrast

The family in *MY GRANDPA MY TREE AND ME* harvests pecans in two different ways: commercially and using home harvesting methods. Create mind maps of both methods. What is the same? What is different?

Refrains

A refrain is a repeated phrase in a story. Find the refrain in *MY GRANDPA, MY TREE, AND ME* ("not my tree/not my pecans"). How does the author use this refrain to add structure to her story?

*Choose another fruit/vegetable/nut to research and write your own seasonal story with a refrain.

Math

06. FRACTIONS & MEASUREMENT

Recipes are great for teaching math! Copy a pecan pie recipe on the board. (One is provided below.) As a class, identify each number. Discuss/review the difference between whole numbers and fractions.

Group the numbers by type. Then talk about the purpose of numbers in a recipe: They represent size measurements.

Define measurement. Experiment with measuring cups and spoons to determine which numbers are largest, smallest, etc.

Order each number by size on a number line.

Pecan Pie Recipe (by the numbers)

1 pie crust
3 large eggs, beaten
1/2 cup light corn syrup
1/2 cup brown sugar, packed
1/2 cup granulated sugar
1/4 cup unsalted butter, melted
1 teaspoons vanilla extract
1/2 teaspoon salt
1/4 teaspoon cinnamon
1 1/2 cups pecans, chopped
1/3 cup pecan halves (for the top)

If no one is allergic, enjoy treats from your favorite pecan recipe.

<https://pin.it/2XGwM5L>



07. HOLIDAY GRAPHING

Pecan vs. Pumpkin

Different parts of the country serve different kinds of pies for the holidays. Ask students to tally and graph the class favorite using the questions below.

- What type of pie does your family serve? Create a bar graph of responses.
- Choose the top three pies. Vote on which pie is your favorite. Create a pie graph of responses.

Compare

Review the linked graph with the class. Ask students to identify the information it represents. How does this compare with the class graphs? Do the class graphs support the information in the "national" graph? Do you think the "national" graph is accurate? Why or why not?

<https://pressroom.geappliances.com/news/america-s-favorite-holiday-pies>

Science

08. SEASONAL SORT & SEQUENCE

MY GRANDPA, MY TREE, AND ME highlights the life-and-harvest cycle of pecan trees. Read the book with your class. Identify each season represented in the text.

Sort & Sequence

Use the attached worksheets to sort each pecan producing activity by season. Have students color the pecan tree to show how the tree changes throughout the year. Cut out each season, and staple them together to create a flipbook.

09. AGRICULTURAL TECHNOLOGY

Healthy pecan trees can live and produce fruit for over 100 years, so growers work hard to protect trees from insects and disease. The best way to do that is to mimic the growing conditions found in the pecan's native habitat—hot weather with plenty of rain and deep, well-drained soil.

Review the elements plants need to survive. Discuss how growers might care for pecans in other habitats. (In arid climates, pecans require regular irrigation and fertilizer. In humid climates disease is common, so growers spray for pecan scab.)

Research technologies that help farmers do their jobs. How might new technology affect pecan farming?

<https://education.nationalgeographic.org/resource/impact-technology-agriculture>

<https://agclassroom.org/matrix/lesson/691/>



10. EXPERIMENTING WITH PECANS

Growers depend on hardy pecan cultivars to grow pecans outside their native environment. A cultivar is a variety of plant created by grafting (or growing from a stem cutting instead of by seed). Using cultivars allows growers to choose the type of characteristics their pecans will have. They may choose pecans that resist disease, or cultivars that ripen early. They can even choose cultivars by taste or ones that have thinner shells. Today over 1,000 different varieties of pecans exist and are enjoyed all over the world.

The Test*

**DO NOT attempt if there are tree-nut allergies in your classroom. Instead use this picture [comparison chart](#) to drive student inquiry.*

Acquire several pecan varieties (Desirable, Pawnee, Stuart, Kanza, Kiowa) in their shells, along with nutcrackers and utensils for measuring. Use the attached organizer to record student findings. Students will:

- Label each pecan
- Examine its size, weight, and shape; record any markings
- Test each pecans' crack: Can you crack it with just your fingers? Does it crack on another nut? Do you need the nutcracker? Does it crack without breaking the nut inside?
- Taste and describe each variety.

Social Studies



11. PECAN'S HISTORY

Modern pecan cultivars wouldn't exist if not for the ingenious idea of a man called Antoine. Antoine was an enslaved gardener at Oak Alley plantation in Louisiana. There he developed a grafting technique that allowed growers to produce large, thin-shelled pecans on hardy wild stock. In 1876, his pecans were showcased at the Philadelphia Centennial Exhibition—and won! Just a few years later, growers from all over the country began using Antoine's grafting technique and the pecan industry was born.

Many such inventions/discoveries can be credited to enslaved or formerly enslaved men and women.

Research

Research Antoine or another enslaved/formerly enslaved inventor.

- Ned, inventor of cotton scraper (slave master, Oscar Stewart)
- Benjamin Montgomery, inventor of steamboat propeller for shallow water
- Henry Boyd, inventor of Boyd bedstead
- Sarah Goode, inventor of folding cabinet bed and first Black woman issued a US patent
- Ellen Eglin, inventor of clothes wringer for washing machines

Present

Share their story:

- Write a news article/advertisement
- Find/write a picture book about the inventor and do a dramatic reading
- Create a lapbook/digital flipbook
- Work with a partner to "interview" the subject

12. GEOGRAPHY

Pecans are the only tree nut native to North America. Originally found growing along the Mississippi river valley, pecans were an important part of Native American diets. Today, the pecan tree is grown commercially throughout the southern United States and Mexico. But pecans are also grown in backyards as far north as Illinois! Pecans grow best in hot climates that get plenty of rain and have deep, well-drained soil.

Map It Out

Print out a [map of the United States](#). Review each geographic area and color the southern states.

Label each state that grows pecans. Have students mark where they live with a large star, then answer the following questions:

- Do you live in a pecan-producing state?
- What makes your area good/not good for growing pecans?

Other

13. SOCIAL/EMOTIONAL REFLECT & SHARE

After reading *MY GRANDPA, MY TREE, AND ME*, direct students to think about how the family in the story changes, and consider how that change might effect each person in the story. Talk about the overarching message of the story (love grows) by asking students the following questions:

- How do you think Grandpa feels about this change in the family?
- How do you think the girl feels?
- What evidence supports your theory?
- How can the grandpa equally care for two special pecan trees? Two special family members?

Help students connect this theme to their own lives.

15. FALL PLAYLIST

Read *MY GRANDPA, MY TREE, AND ME*. Highlight a few lyrical phrases in the story and talk about the feelings they evoke.

Have each student choose one phrase and its associated feeling from the book, and create a music playlist that evokes the same feeling.

Compile selections from each playlist to create a whole-class playlist for the fall season. Talk about how music and other senses can enliven our writing.

Listen to the playlist each time the class does a writing activity to remind them to write with their senses.



14. STEM ART: BUILD A NOISEMAKER

Protect your garden with a recycled noisemaker/wind chime. You'll need a stick, craft wire and cutters, acrylic paint, and a variety of metal objects of different sizes (washers, canning lids and rings, craft bells, bottle caps, etc. If you use canning lids or bottle caps, you may also need a metal punch). Feel free to add other outdoor-friendly craft supplies like wood or plastic beads for more color.

Steps

1. Paint & seal your metal objects
 - Spray, sponge, and fleck as desired.
 - Seal with clear spray paint or ModPodge.
2. Cut a length of wire 24" long
 - Bend it in the middle; wrap at least 3" of both ends of the wire to opposite ends of your stick to form a triangle.
3. Lay your objects out
 - Alternate sizes, colors, and shapes.
 - Add beads/bells as desired.
4. Cut various lengths of wire. String objects.
 - Twist knots into the wire to keep objects from sliding.
5. Wrap each wire onto your stick
 - Keep the wires close enough that the objects will clang in the wind.
6. Hang on a tree branch and enjoy!

Vocabulary Cards

Print and cut apart each vocabulary card with its definition. Use them as is to play a matching game, or glue the vocab word and definitions together to make flashcards.

fertilize



irrigate



cultivar

dormant



Vocabulary Cards

orchard



prune



growing
season

fruiting



Definitions

fertilize

verb

add minerals
to the soil so
plants grow
better



irrigate

watering
crops without
rain *(like with sprinklers)*



verb

a variety of
plant created
by breeding

noun



cultivar

adjective
a plant that
is alive but
not growing
(often happens in winter)



dormant

Definitions

orchard

prune

noun

a garden of
fruit or nut
trees



to cut a plant
to increase its
growth



verb



the time of
year when
plants grow

noun

verb

when a plant
bears fruit



growing season

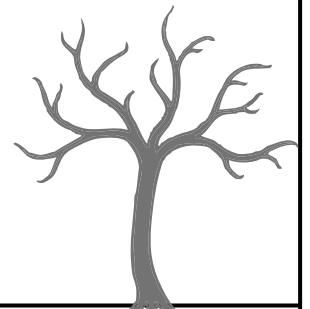
fruiting

Seasonal Sort

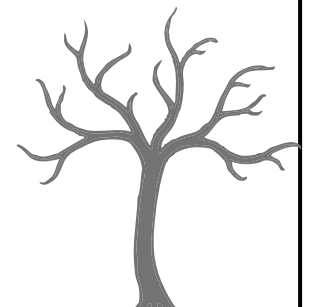
Color and cut out each pecan producing activity on page 3. Glue it into the correct season. Then draw and color the pecan tree to show how it changes throughout the year.

(Option: Cut out each seasonal block. Stack and staple them in order along the left side to create a flipbook.)

Winter

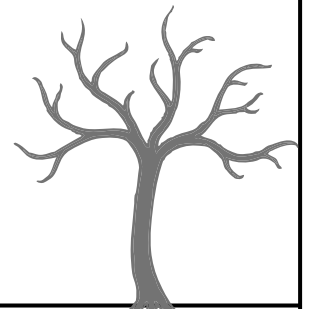


Spring

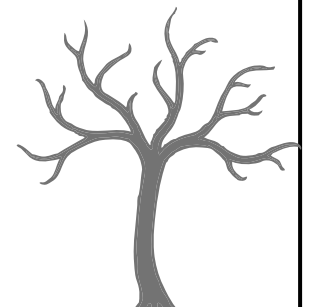


Seasonal Sort

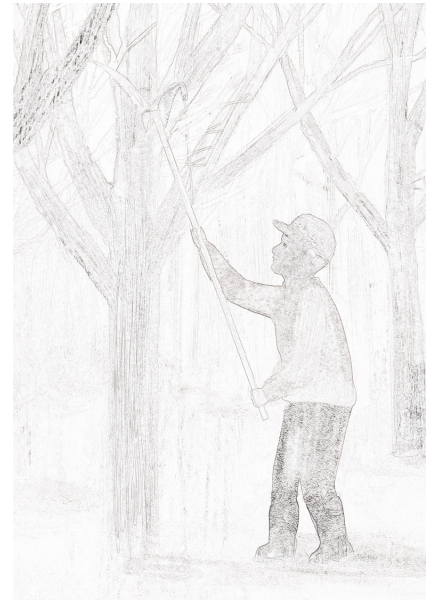
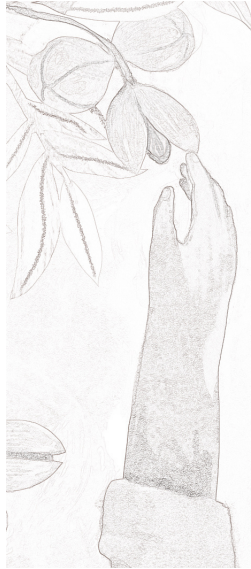
Summer



Fall



Seasonal Sort



Experimenting with Pecans

Place one of each variety of pecan in the boxes across the top of your paper. Draw and label each. As you experiment with the varieties, record your findings in the space provided.

Pecan Varieties

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size (cm) _____

weight (g) _____

Test each pecans' crack strength by answering the questions below. When the variety cracks, stop and record your findings. (Keep each variety in the same order as above.) Draw each variety's crack pattern in the boxes below.

Pecan Crack

--	--	--	--

Can you crack the pecan by squeezing it between your fingers?

Y N Y N Y N Y N

If you squeeze two nuts together will they crack?

Y N Y N Y N Y N

When you use the nutcracker, does it crack without breaking the nut inside?

Y N Y N Y N Y N

In the boxes above, use one or two words to describe how each variety tastes. Star your favorite.