

Teachers Guide to Third and Fourth Grade
Reading and Writing Exercises for:



The Big Tree

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This Guide Includes:

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 3. Time Line Story of a Tree

* the vocabulary list could be used as a student handout or made into a transparency

1. Language Arts Sunshine State Standards Connections Chart

Activity	Third Grade Standards	Fourth Grade Standards
Preview	3.1.7.1, 3.3.1.1	4.3.1.1
Reading Discussion	3.1.6.1, 3.1.6.2, 3.1.7.3, 3.1.7.4, 3.2.1.5, 3.2.2.2, 3.5.2.1	4.1.6.1, 4.1.6.2, 4.1.7.3, 4.1.7.4, 4.2.1.5, 4.2.2.2,
Worksheet 1: Vocabulary	3.1.6.1	4.1.6.1
Worksheet 2: Fact, Fiction, Opinion	3.6.3.1	
Worksheet 3: Imagery, Similes, Onomatopoeia	3.2.1.7, 3.3.3.3	4.2.1.7, 4.3.3.3
Writing 1: Compare and Contrast Seasons*	3.1.7.7, 3.2.1.5, 3.2.2.3, 3.3.1.1, 3.3.1.3, 3.3.2.1, 3.3.3.3, 3.3.5.1	4.1.7.7, 4.2.1.5, 4.2.2.3, 4.3.1.1, 4.3.1.3, 4.3.2.1, 4.3.3.2, 4.3.3.3, 4.4.2.3
Writing 2: Tree Rings Story of your Life*	3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.2.1, 3.3.3.3, 3.4.1.1, 3.4.2.3	4.2.1.5, 4.3.1.1, 4.3.1.2, 4.3.3.3, 4.3.2.1, 4.4.1.1
Writing 3: Time Line Story of a Tree*	3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.2.1, 3.3.3.3, 3.3.5.1, 3.4.1.1	4.3.1.1, 4.3.1.2, 4.3.1.3, 4.3.2.1, 4.3.3.3, 4.4.1.1

*Writing can be scored with an FCAT Six point Rubric

Consider introducing a sharing and editing component to the writing process and cover benchmarks relating to standard 3.4.3 or 4.3.4 as well!

2. Related PLT Activities

The activities listed below could be used to enhance “The Big Tree” lesson. All PLT activities are connected to the Sunshine State Standards and can be found on the Florida PLT website at <http://www.sfrc.ufl.edu/plt/correlations/index.html>.

#2 Get in Touch with Trees
#5 Poet-Tree
#13 We All Need Trees
#21 Adopt a Tree
#22 Trees as Habitats
#27 Every Tree for Itself
#30 Three Cheers for Trees
#31 Plant a Tree
#41 How Plants Grow

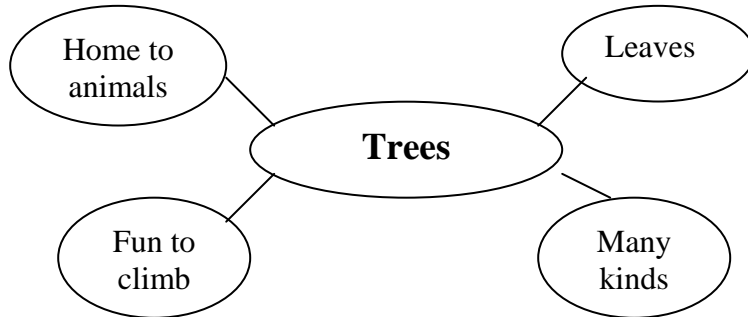
#61 The Closer You Look
#62 To be a Tree
#63 Tree Factory
#67 How Big is your Tree?
#68 Name that Tree
#76 Tree Cookies
#77 Trees in Trouble
#79 Tree Lifecycle
#89 Trees for Many Reasons

#12 Tree Treasures in 2005 and earlier additions of the PLT Activity Guide for PreK-8 Grade.

3. Preview

Guide students through a class discussion before reading the story. After looking at the cover of the book, develop a word web on the board or overhead with their ideas and thoughts about trees. What do they know about trees? What do they like or dislike about trees?

Ex.



4. Reading Discussion Questions

1. Why aren't this tree's leaves needed in the winter? *When the ground is frozen, the leaves can't bring water into the tree.*
 2. Where is northern New York State? How is the climate there different from here?
 3. Why do leaves change color? *They begin to die and the green color fades.*
- * Pause after the second page and take time to discuss some predictions.
4. What do they think the story will be about of what happened to the tree before it got so big?
 5. Ask what sorts of things happen in a tree's life? What do they see happen to trees? *Trees are trimmed, uprooted by hurricanes, develop cones or flowers.*
- *Add some of the responses to the word web and then continue reading the story
6. How big is a circle that is four feet thick? (*diameter*) *Ask students to guess how big a circle is that is 4 feet across, and then to measure their circles. Have them stand together to create a circle that is 4 feet across.*
 7. What does this seed need before it can grow? Where does it need to land? *Landing on soil, chilled by winter, warm sun, dampness*
 8. Name all the animals that lived in the ancient forest pictured on this page: *deer, bald eagle, woodpecker, wolf, chipmunk*. What other animals probably lived there? *Squirrel, elk, bobcat, weasel, mink, owl.*
 9. What is a winged seed? What does the wing do? *The wing is a part of the seed that helps it catch the wind and fly away, and whirl.*

10. Why did the tree grow slowly at first? *It was shaded by big trees nearby. It couldn't get enough sunlight*
11. What happened that it allowed it to grow faster? *A big tree fell over in a storm; then it got more sunlight*
12. Why did it grow faster than the seedlings in the shade? *It made more food energy because it was photosynthesizing in the sunlight.*
13. Where did the tree get its food? *It made it.*
14. What three things does the tree need to make food? *Sunlight, water, carbon dioxide from the air*
15. What does the tree do with the energy it gets from this food? *It helps the tree grow, it is stored, and it becomes wood, more leaves, new roots, and bark*
16. Why did the loggers clear the hillside? *To make a farm*
17. Why was the tree not cut? *The owner wanted to put his house near the tree and keep the tree in his yard.*
18. What do you think the owner did with all the logs cut from the forest? *The logs were probably cut into boards to make homes and cities. Many trees were cut all over the eastern U.S. to build towns and cities. In Florida, most of the old large trees were cut in the early 1900's – almost 100 years after they were cut in New York – why? Settlers went to New York first and came to Florida much later.*
19. How did the logger know how old the trees were? *Counted the rings in the stump. NOTE: This tree had to have been cut with a saw, not an ax.*
20. What happens to old leaves? *They lay on the ground and eventually rot away, helping to enrich the soil with their nutrients*
21. What keeps the tree from falling over? *Big roots near the trunk anchor it in the soil. NOTE roots grow right around rocks.*
22. How does a tree get water? *Tiny root hairs that are far from the trunk absorb water and minerals. The water and minerals are carried through the roots and up to the leaves.*
23. How do all parts of the tree get nutrients? *Sap moves sugar and nutrients throughout the tree. It moves because leaves evaporate moisture, just like sucking on the end of a straw. The leaves suck on the sap and more water comes into the root hairs.*

24. Does a tree pump more water out of the ground on a sunny day or a cloudy day? Why?
Sunny day, because photosynthesis is needed to create the moisture that evaporates and “sucks” sap through the tree.
25. How do you make maple syrup? *You tap a maple tree to collect sap, then boil the sap until the clear “water” becomes a thick sweet syrup or a chewy candy.* NOTE: wintery weather is needed to drive sugars into the roots so that the sap will be sweet in the spring. Cold nights and sunny days make a good sap run. Florida’s weather doesn’t allow us to produce maple syrup.
26. How do the farmers know when to stop collecting sap? *When the buds swell*
27. When do maple trees bloom in Florida? *Red maples bloom in January and February in wet swampy places.* Why do maples bloom in May in New York? *Farther north the weather is colder; the maple trees bloom when it is warm.*
28. Which was older, the maple tree or the house? *The tree.* Which became broken and needed repair first? *The house.*
29. What could make a tree old and injured? *Lightning strike, losing branches in a storm, insects, disease, rot – breaks in the bark that could let disease inside the tree.*
30. What protects the tree from bugs and disease? *The bark*
31. Why did a branch fall? *The heavy wet snow made the branch too heavy.*
32. How will the tree recover? *It will grow new wood and bark over the broken limb, creating a scar.*
33. Why does the author keep mentioning what is going on at the time: the Revolutionary War, George Washington, the Civil War, cars, electricity, etc.? *to help readers understand that the tree is growing for a very long time.*
34. What is the main message of this story? What did the author want readers to learn? *How trees grow, and that trees grow for a long time*

NOTE: the bird on the last page is a nuthatch – the same bird featured in the story “In the Forest of S.T. Shrew” in The Who Lives Near Here? Lesson.

5. Vocabulary Words

- Ancient**– very old, referring to a long, long time ago
- Anther**– part of the stamen on a flower that produces grains of pollen
- Bark**– tough covering of a trunk that protects the tree
- Bud** – encapsulated new plant growth (leaves, stem, or flower)
- Cellulose**– main component of plant cell walls
- Chickadees**– a small bird common through out North America
- Chlorophyll**– molecule that converts sunlight, (CO₂ + water) → (O₂ + sugar)
- Circulate**– move around or throughout, flow
- Evaporate**– converting from liquid to vapor without boiling
- Massive**– very big, bulky and or heavy
- Minerals**– nutrients needed for healthy growth
- Network**– a system or group of interconnected things or people
- Photosynthesis**– a process that green plants use to make sugar (food energy)
using sunlight, carbon dioxide and water
- Pollen** – powdery reproductive cells from male flower
- Produce** – to make or create
- Root**– part of the plant that is below the soil absorbing nutrients and water
- Sap**– water with minerals and food energy that moves through a tree
- Spile**– spout stuck in trees to collect sap
- Sprout**– first step in germination
- Whirled**– spin around or travel while turning
- Wilderness**– legally defined area kept untouched by machinery

Vocabulary Words
The Big Tree

Ancient

Anther

Bark

Bud

Cellulose

Chickadees

Chlorophyll

Circulate

Evaporate

Massive

Minerals

Network

Photosynthesis

Pollen

Produce

Root

Sap

Spile

Sprout

Whirled

Wilderness

The Big Tree

Worksheet 1- Vocabulary

First name _____

Last name _____

Directions: Use the vocabulary words from the story to complete the following sentences.

- 1) On weekends, people go to the _____ to camp under the _____ trees that reach high into the sky.
- 2) _____ and other wildlife have lived in the _____ forest for hundreds of years.
- 3) On sunny days, water and sap _____ from leaves.
- 4) _____ makes food energy for trees by a process called _____ in the green leaves.
- 5) In the Spring, _____ swell and small flowers _____ a yellow dust called _____.
- 6) _____ is a tough fiber found in all parts of the tree.
- 7) The winged seed _____ to the ground.
- 8) _____ protects the tree from insects and rot.
- 9) A _____ is hammered into the trunk to collect _____ that is _____ throughout the tree.
- 10) This seed is beginning to _____.
- 11) The _____ of _____ support the tree and absorb many _____ from the soil.

The Big Tree

Worksheet 1 - Vocabulary

ANSWER KEY

Directions: Use the vocabulary words from the story to complete the following sentences.

- 1) On weekends, people go to the wilderness to camp under the massive trees that reach high into the sky.
- 2) Chickadees and other wildlife have lived in the ancient forest for hundreds of years.
- 3) On sunny days, water and sap evaporate from leaves.
- 4) Chlorophyll makes food energy for trees by a process called photosynthesis in the green leaves.
- 5) In the Spring, buds swell and small flowers produce a yellow dust called pollen.
- 6) Cellulose is a tough fiber found in all parts of the tree.
- 7) The winged seed whirled to the ground.
- 8) Bark protects the tree from insects and rot.
- 9) A spile is hammered into the trunk to collect sap that is circulating throughout the tree.
- 10) This seed is beginning to sprout.
- 11) The network of roots support the tree and absorb many minerals from the soil.

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Worksheet 2 – Fact, Fiction, Opinion

First name _____

Last name _____

Part 1: Fact or Fiction? Put a check next to following sentences that are facts.

- 1) All trees grow to be four feet thick. _____
- 2) Green plants absorb sap through their roots. _____
- 3) You can often tell how old a tree is by counting its rings. _____
- 4) Sugar Maple leaves stay on the tree all year round. _____
- 5) Pollen is produced by flowers. _____
- 6) The Big Tree was over 200 years old _____

Part 2: Fact or Opinion? Write F next to the facts and O next to the opinions.

Remember, an opinion is what someone thinks while a fact can be proven true.

- 1) The tree was dazzling and bright. _____
- 2) In the early 1800's, when the tree was about thirty years old and the U.S. was spreading westward, loggers came to the ancient forest. _____
- 3) Sugar Maple seeds must be chilled by the winter before they are ready to grow.

- 4) Photosynthesis is a wonderfully complex process. _____
- 5) Water in sap evaporates from each leaf and twig. _____
- 6) "This is a good site for a house." _____

Part 3: Practice

A. Write 2 facts you learned about trees.

- 1) _____

- 2) _____

B. Write 2 opinions you have about trees.

- 1) _____

- 2) _____

The Big Tree

ANSWER KEY

Worksheet 2 – Fact, Fiction, Opinion

Part 1: Fact or Fiction? Put a check next to following sentences that are facts.

- 1) All trees grow to be four feet thick. _____
- 2) Green plants absorb sap through their roots. _____
- 3) You can often tell how old a tree is by counting its rings. X
- 4) Sugar Maple leaves stay on the tree all year round. _____
- 5) Pollen is produced by flowers. X
- 6) The Big Tree was over 200 years old X

Part 2: Fact or Opinion? Write F next to the facts and O next to the opinions.
Remember, an opinion is what someone thinks while a fact can be proven true.

- 1) The tree was dazzling and bright. O
- 2) In the early 1800's, when the tree was about thirty years old and the U.S. was spreading westward, loggers came to the ancient forest. F
- 3) Sugar Maple seeds must be chilled by the winter before they are ready to grow. F
- 4) Photosynthesis is a wonderfully complex process. O
- 5) Water in sap evaporates from each leaf and twig. F
- 6) "This is a good site for a house." O

Part 3: Practice

A. Write 2 facts you learned about trees.

- 1) example-It can takes years for a tree to recover from storm damage

- 2) _____

B. Write 2 opinions you have about trees.

- 1) example-Trees become more beautiful the older they are

- 2) _____

The Big Tree

Worksheet 3 - Imagery

First name _____

Last name _____

The story uses vivid imagery and similes to describe the tree and things around it. These descriptions help the reader picture what the author means and make the story more enjoyable. Descriptive adjectives and adverbs are used to create imagery while similes use the words like or as to compare two different things. Now you will practice writing some descriptions yourself!

Examples using imagery:

- * Wolves prowled silently in the woods.
- * The massive trunk was four feet thick and its branches reached 100 feet in the air.
- * Heavy, wet flakes clung to the leaves, bending branches till they could stand no more.

Examples using similes:

- * The sound of breaking trees was like a rifle fire in the woods.
- * The leaves lay on the ground like an old brown carpet.
- * After six years, the tree was only as tall as a rabbit.

Practice

A. Use vivid words and details to describe something in the illustrations of the story.

1) _____

2) _____

B. Now use similes to describe two more things found in the illustrations.

1) _____

2) _____

The story also uses onomatopoeia to help the reader better imagine what is happening. Onomatopoeia is a word that imitates the sound it is describing.

Example: *Snap...thump!* A large limb crashed on the yard. Then *whump*, another fell.

C. Can you think of 5 more examples of onomatopoeia?

1) _____

2) _____

3) _____

4) _____

5) _____

The Big Tree

Worksheet 3- Imagery

ANSWER KEY

The story uses vivid imagery and similes to describe the tree and things around it. These descriptions help the reader picture what the author means and make the story more enjoyable. Descriptive adjectives and adverbs are used to create imagery while similes use the words like or as to compare two different things. Now you will practice writing some descriptions yourself!

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Examples using similes:

- * The sound of breaking trees was like a rifle fire in the woods.
- * The leaves lay on the ground like an old brown carpet.
- * After six years, the tree was only as tall as a rabbit.

Practice

A. Use vivid words and details to describe something in the illustrations of the story.

1) example- The smell of boiling sap fills the air with a sweet sugar that can be smelled for miles.

2) _____

B. Now use similes to describe two more things found in the illustrations.

1) example After the settlers cut down the forest, the land looked rough like my dad's face when he needs to shave.

2) _____

The story also uses onomatopoeia to help the reader better imagine what is happening. Onomatopoeia is a word that imitates the sound it is describing.

Example: *Snap...thump!* A large limb crashed on the yard. Then *whump*, another fell.

C. Can you think of 5 more examples of onomatopoeia?

1) gurgle

2) pop

3) zoom

4) _____

5) _____

The Big Tree

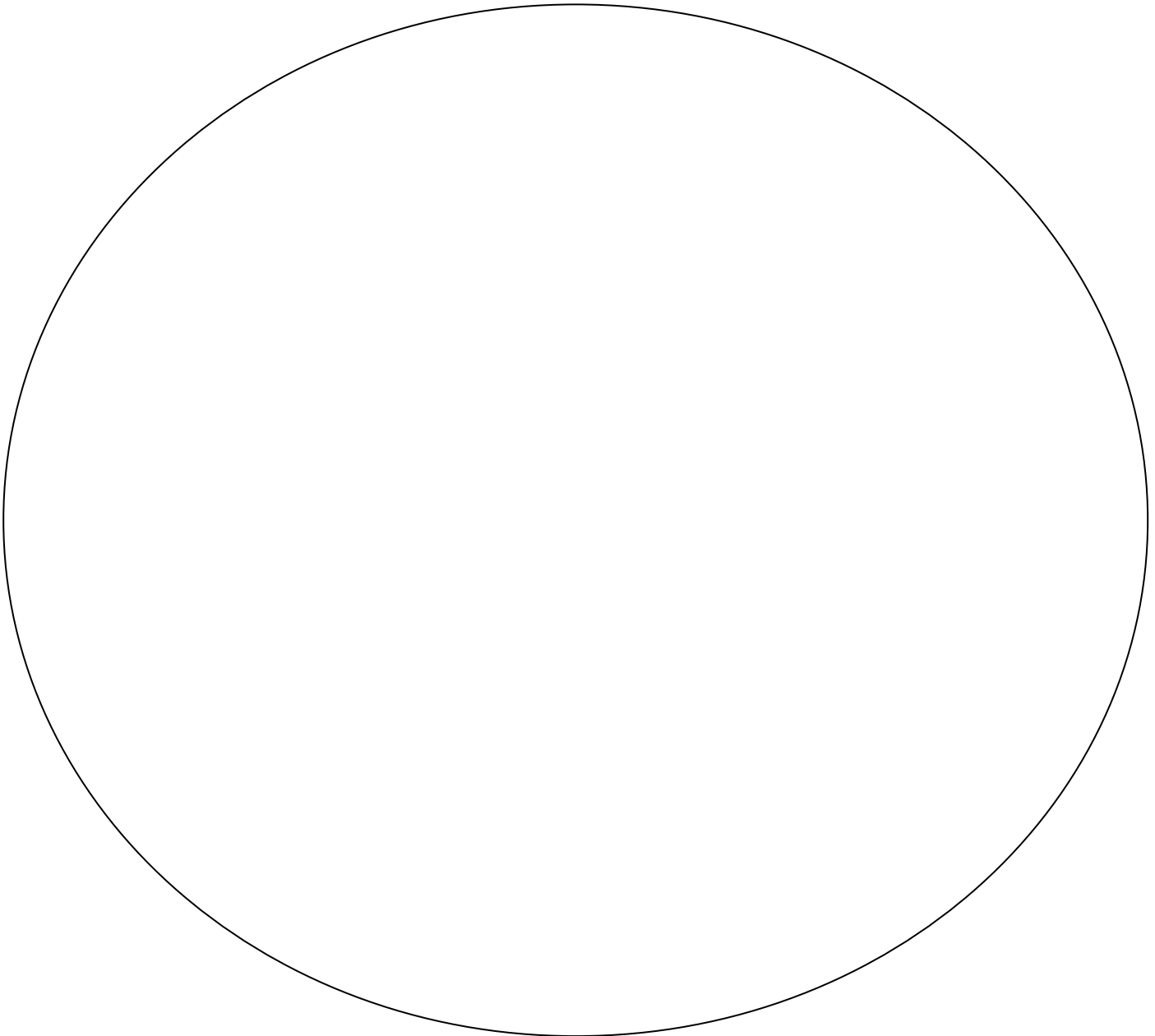
Writing 2 – Tree Rings Story of your Life

First name _____

Last name _____

Plan your writing:

Imagine this circle is the outermost ring of a tree stump. Draw one ring inside for each year of your life. Fill in the rings with events from your life. For example, you may choose to include if you had a younger brother or sister born, a fun family trip, a time your family moved to a new place, or a recital or sports game you performed in.



Writing Prompt:

Use your tree stump plan to write a story about your life. Pick three of the events you listed and write a paragraph about each. Use the event as the topic sentence and write the rest of the paragraph to explain the event and why it is important. Use your own sheet of paper.

The Big Tree

Writing 3 – Timeline Story of a Tree

First name _____

Last name _____

Plan your writing:

Pick a tree near your house or school. Imagine the tree as a seed just beginning to grow. What else has happened to the tree during its life? Create a timeline similar to the one on the title page of “The Big Tree.” Use the line on this page to help you. You may write above and below the line and use pictures or words to show events that you imagine have happened near the tree.

Writing Prompt:

Use your timeline to help write your own story about the tree. Use your own sheet of paper.