



THE MAN WHO PLANTED TREES

Applause Series Curriculum Guide
March 23-29, 2017

THE MAN WHO PLANTED TREES

Dear Teachers,

Thank you for joining us for the Applause Series presentation of *The Man Who Planted Trees*, brought to us by Puppet State Theatre of Scotland. Simple yet innovative, *The Man Who Planted Trees* invites audience members to laugh along with the antics of loveable Dog, to breathe in a world of rivers and lavender fields, and — most of all — to contemplate the beautiful tale of a man who sets out to make a difference one acorn at a time. Through his dedicated actions Elzéard transforms an entire landscape and the lives of its people, demonstrating that when we take care of the environment, the environment takes care of us in turn.

As you prepare your students for this experience, we hope that this study guide helps you connect the performance to your classroom curriculum in ways that you find valuable. In the following pages, you will find contextual information about the performance and related subjects, as well as a variety of discussion questions and activities. Some pages are appropriate to reproduce for your students; others are designed more specifically with you, their teacher, in mind. As such, we hope that you are able to “pick and choose” material and ideas from the study guide to meet your class’s unique needs.



Dog herds sheep in *The Man Who Planted Trees*.

See you at the theater,

Des Moines Performing Arts Education Team

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American Enterprise Group, Arts Midwest, Bradford and Sally Austin, Bravo Greater Des Moines, The Coons Foundation, EMC Insurance Companies, EquiTrust Life Insurance Company, Hy-Vee, Inc., Iowa Department of Cultural Affairs, John Deere, Richard and Deborah McConnell, Nationwide, Polk County, Prairie Meadows, Principal Financial Group, U.S. Bank, Wells Fargo & Co., West Bancorporation Foundation, Windsor Charitable Foundation, and more than 200 individual donors.

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This study guide was compiled and written by Yvette Zarod Hermann and Karoline Myers; edited by Michelle McDonald.

ABOUT DES MOINES PERFORMING ARTS



Des Moines Performing Arts is a private, nonprofit organization and is an important part of central Iowa's cultural community. It is recognized nationally for excellence as a performing arts center and is committed to engaging the Midwest in world-class entertainment, education, and cultural activities.

Des Moines Performing Arts presents professional touring productions, including theater direct from Broadway, world-renowned dance companies, family programming, comedy, and concerts.

Education and Community Engagement programs are core to Des Moines Performing Arts' mission as a nonprofit performing arts center.

Public education programs allow audience members and local artists to make meaningful and personal connections to the art they experience on our stages. Guest lectures and Q&As with company members allow audiences to explore the inner workings of the performance. In addition, master classes, workshops, and summer camps taught by visiting performers give local actors, dancers, and musicians the chance to increase their skills by working directly with those who know what it takes to succeed on the professional stage.

Through its **K-12 School Programs**, Des Moines Performing Arts strives to ensure that central Iowa students have affordable access to high quality arts experiences as part of their education. More than 55,000 students and educators attend curriculum-connected school matinee performances through the Applause Series annually. In addition, Des Moines Performing Arts sends teaching artists into the schools to provide hands-on workshops and residencies in special opportunities that engage students directly in the creative process. And, through its partnership with the John F. Kennedy Center, Des Moines Performing Arts provides teachers with in-depth professional development training on how to use the arts in their classrooms to better impact student learning. The Iowa High School Musical Theater Awards is Des Moines Performing Arts' newest initiative to support the arts in Iowa schools, providing important learning tools and public recognition to celebrate the achievements of students involved in their high school theater programs.

DID YOU KNOW?

More than 300,000 people visit Des Moines Performing Arts venues each year.

Des Moines Performing Arts opened in 1979.

Des Moines Performing Arts has three theater spaces:

- *Civic Center, 2744 seats*
- *Stoner Theater, 200 seats*
- *Temple Theater, 299 seats (located in the Temple for the Performing Arts)*

No seat is more than 155 feet from center stage in the Civic Center.

Cowles Commons, situated just west of the Civic Center, is a community gathering space. Features include the Lauridsen Fountain, the Crusoe Umbrella sculpture by Claes Oldenburg, and the Swirl sculpture by Jim Campbell.

As a nonprofit organization, Des Moines Performing Arts depends on donor funding to support facilities, programming, and education programs.

The Applause Series started in 1996. You are joining us for our 21st season of school performances!

GOING TO THE THEATER . . .



YOUR ROLE AS AN AUDIENCE MEMBER

Attending a live performance is a unique and exciting opportunity. Unlike the passive experience of watching a movie, audience members play an important role in every live performance. As they act, sing, dance, or play instruments, the performers on stage are very aware of the audience's mood and level of engagement. Each performance calls for a different response from audience members. Lively bands, musicians, and dancers may desire the audience to focus silently on the stage and applaud only during natural breaks in the performance. Audience members can often take cues from performers on how to respond to the performance appropriately. For example, performers will often pause or bow for applause at a specific time.

As you experience the performance, consider the following questions:

- * What kind of live performance is this (a play, a dance, a concert, etc.)?
- * What is the mood of the performance? Is the subject matter serious or lighthearted?
- * What is the mood of the performers? Are they happy and smiling or somber and reserved?
- * Are the performers encouraging the audience to clap to the music or move to the beat?
- * Are there natural breaks in the performance where applause seems appropriate?

A SPECIAL EXPERIENCE

Seeing a live performance is a very special experience. Although it is not required, many people enjoy dressing up when they attend the theater.

THEATER ETIQUETTE

Here is a checklist of general guidelines to follow when you visit the Civic Center:

- * Leave all food, drinks, and chewing gum at school or on the bus.
- * Cameras, recording devices, and personal listening devices are not permitted in the theater.
- * Turn off and put away all cell phones, pagers, and other electronic devices before the performance begins.
- * Do not text during the performance.
- * Respect the theater. Remember to keep your feet off of the seats and avoid bouncing up and down.
- * When the house lights dim, the performance is about to begin. Please stop talking at this time.
- * **Talk before and after the performance only.** Remember, the theater is designed to amplify sound, so the other audience members and the performers on stage can hear your voice!
- * Use the restroom before the performance or wait until the end. If you must leave the theater during the show, make sure the first set of doors closes before you open the second — this will keep unwanted light from spilling into the theater.
- * Appropriate responses such as laughing and applauding are appreciated. Pay attention to the artists on stage — they will let you know what is appropriate.
- * Open your eyes, ears, mind, and heart to the entire experience. Enjoy yourself!

GOING TO THE THEATER information is adapted from the Ordway Center for the Performing Arts study guide materials.

TEMPLE THEATER FIELD TRIP INFORMATION



**Thank you for choosing the Applause Series with Des Moines Performing Arts.
Below are tips for organizing a safe and successful field trip to the Temple Theater.**

ORGANIZING YOUR FIELD TRIP

- Please include all students, teachers, and chaperones in your ticket request.
- After you submit your ticket request, you will receive a confirmation e-mail within five business days. Your **invoice will be attached to the confirmation e-mail.**
- Payment policies and options are located at the top of the invoice. (Full payment and cancellation policies may be viewed at DesMoinesPerformingArts.org/education.)
- DMPA reserves the right to cancel unpaid reservations after the payment due date.
- Tickets are not printed for Applause Series shows. Your invoice will serve as the reservation confirmation for your group order.
- Schedule buses to arrive in downtown Des Moines at least 30 minutes prior to the start of the performance. This will allow time to park, walk to the Temple for the Performing Arts, and be seated in the theater.
- Performances are approximately 60 minutes unless otherwise noted on the website and printed materials.
- All school groups with reservations to the show will receive an e-mail notification when the study guide is posted. Please note that study guides are only printed and mailed upon request.

DIRECTIONS

- The Temple Theater is located in the Temple for the Performing Arts located at Tenth and Locust Streets in downtown Des Moines.
- Directions from I-235: Take Exit 8A (downtown exits) and the ramp toward Third Street. Travel south on Third Street approximately six blocks to Grand Avenue. Turn west on Grand Avenue and travel to Thirteenth Street. Turn south on Thirteenth Street and then east on Locust Street.
- Buses will park on the south side of Locust Street in front of the Nationwide building. See next column for additional parking information.

QUESTIONS?

Please contact the Education department at education@desmoinesperformingarts.org or 515.246.2355.
Thank you!

PARKING

- Police officers stationed at the corner of Tenth and Locust Streets will direct buses to parking areas with hooded meters near the theater. Groups traveling in personal vehicles are responsible for locating their own parking.
- Buses will remain parked for the duration of the show.
- Buses are not generally permitted to drop off or pick up students near the theater. If a bus must return to school during the performance, prior arrangements must be made with DMPA Education staff.

ARRIVAL

- When arriving at the theater, please have an **adult lead your group** for identification and check-in purposes. A staff member may be stationed outside the building to direct you.
- DMPA staff will usher groups into the building as quickly as possible.
- Seating in the theater is general admission. Ushers will escort groups to their seats; various seating factors including group size, grade levels, arrival time, and special needs seating requests may determine a group's specific location in the theater.
- We request that an **adult lead the group into the theater and other adults position themselves throughout the group**; we request this arrangement for supervision purposes, especially in the event that a group must be seated in multiple rows.
- Please allow ushers to seat your entire group before rearranging seats or taking groups to the restroom.

IN THE THEATER

- In case of a medical emergency, please notify the nearest usher.
- We ask that adults handle any disruptive behavior in their groups. If the behavior persists, an usher may request your group to exit the theater.
- Following the performance groups may exit the theater and proceed to their bus(es).
- * If an item is lost at the Temple Theater, please see an usher or call 515.246.2355

VOCABULARY



PUPPETRY & THEATER



mouth puppet: a puppet that has an open-able and moving mouth. “Dog” is an example of a mouth puppet.

multi-sensory: appealing to multiple senses; may draw on a combination of sight, hearing, smell, touch and taste.



Image courtesy of stephaniebeeby.com.

object manipulation: the art of taking normal, everyday objects, turning them into found puppets, and operating them onstage.

table-top puppetry: puppetry performed on top of a table. The character of the Member of Parliament, pictured above, is an example of a table-top puppet in *The Man Who Planted Trees*.

FROM THE SHOW:

charcoal: a fuel made by humans from wood that has been slowly burned to “carbonize” it. After the wood has burned, the resulting black ashy material can be burned at temperatures of 2000 degrees Fahrenheit or more. Unchecked use of charcoal has led to deforestation. Charcoalburners were responsible for the ruins and desolation in Elzéard’s world.



Image courtesy of glogster.com.

lavender: a hardy and fragrant wild flowering plant that thrives in places with little water and shade. Lavender was the only thing that grew in Eleazard’s land before he started planting trees.



Image courtesy of thisoldhouse.com.

linden tree: a type of tree that grows abundant bright green leaves, and produces nectar-bearing flowers that smell like honey in summer. The linden is known as a “healing” tree, for it’s heart-shaped leaves, sweet smell, and because the shiny sides of the leaves face down, for poets to dream underneath.



A linden tree grows near a fountain at the center of Vergons, Elzéard’s prosperous and happy town, when the narrator visits it at the end of the story. Image courtesy of dreamstime.com.

World Wars I and II: World War I was a major war centered in Europe from 1914 to 1918. World War II was a global war that began in 1939 and ended in 1945. Elzéard continues to plant trees and care for his growing forest despite hardships as a result of the fighting in Europe during both of the World Wars.

ABOUT THE PERFORMANCE



ABOVE: The narrator talks with Dog.

This multi-sensory theatrical delight is based on Jean Giono's 1953 classic environmental novel. The play is a unique blend of comedy and puppetry and tells the inspiring tale of a human being who saw a need and decided not to ignore it but "to put things right." In spite of wars and hardship, a French shepherd sets out with his dog to plant a forest and transforms a barren wasteland into a fragrant forest. This uplifting and unforgettable story shows us the difference one man (and his dog!) can make to the world.

Run time: Approx. 60 minutes

SETTING

The Man Who Planted Trees spans a thirty year period that includes World War I and World War II. Set in a remote fictitious area of France, the beginning of the story features a desolate valley devoid of people. Over time, thanks to the efforts of the humble shepherd Elzéard, a vast forest grows. With the landscape transformed, people, peace and prosperity return to the region.

CAST

The show features a small cast of two. One actor primarily takes the role of the unnamed narrator. The other performs the role of Dog, the shepherd's companion. Both actors work together to perform the additional character roles that are represented with puppets.

MULTI-SENSORY

We experience most theater shows with two of our senses: sight and hearing. *The Man Who Planted Trees*, however, is a multi-sensory performance. During the show, the actors further transport the audience into the world of the story by appealing to our senses of smell and touch.



At strategic points in the show, the actors waft scents such as lavender through the theater. Image courtesy of life123.com.

AUDIENCE REACTIONS

"Expertly put together and extremely entertaining ... This is just a wonderful, enchanting piece of theatre for children or for adults."

—British Theatre Guide

"Enrancing - a unique experience that tugs at the heart strings, induces chuckles of pure delight and warm tears of joy and sadness - not to be missed!!"

—Robin Harper, MSP

"I never laughed so much IN MY LIFE!"

—Roger, age 8

"This show makes your imagination come alive. It makes you think that 1 man could make such a big difference. It's made me realise what a difference I can make! [ps] the dog was great!"

—Caitlin, age 8

ABOUT THE AUTHOR AND THE COMPANY



The performance of *The Man Who Planted Trees* that you will experience was adapted from a short French novel by writer Jean Giono. The company that created the stage adaptation is Puppet State Theatre from Scotland.

Read on to learn more about the author and the creators of the stage performance.



Jean Giono, the author of *The Man Who Planted Trees*. Image courtesy of mots.extraits.free.fr.

"I wrote this story to make people love trees, or more precisely to make people love planting trees."

-Jean Giono



THE AUTHOR

Jean Giono, the only son of a cobbler and a laundress, was one of France's greatest writers. He wrote stories, essays, poetry, plays, filmscripts, translations and over thirty novels, many of which have been translated into English.

Giono was a pacifist, meaning he did not believe that conflict should be resolved through violence. He was twice imprisoned in France for speaking out at the outset and conclusion of World War II.

He was born in 1895 in the little city of Provence, and died there, too, in 1970.

AWARDS:

- Prix Breton
- Prix de Monaco (for the most outstanding collected work by a French writer)
- Légion d'Honneur
- Member of Academie Goncourt

ABOVE: The narrator sets the scene at the beginning of the performance. What can you tell about the setting based on what you see in the photo?

THE SHOW'S CREATORS

Puppet State Theatre was founded in Edinburgh, Scotland in 2003 by Richard Medrington, a professional puppeteer since 1984. In 2006 he teamed up with Rick Conte and Ailie Cohen to develop an adaptation of Jean Giono's *The Man Who Planted Trees*, which has travelled to all corners of the United Kingdom, Ireland, Bermuda, Malaysia, and the United States of America.

AWARDS:

- Eco Prize for Creativity 2007
- Total Theatre Award for Story Theatre 2008
- Best Children's Show: Brighton Festival 2009
- Victor Award for best show: 2009 International Performing Arts for Youth showcase

ABOUT SCOTLAND



The Man Who Planted Trees is coming to Des Moines from the international company Puppet State Theatre, which is from Scotland. Learn more about Scotland prior to seeing the show.

GEOGRAPHY

Scotland is in north-west Europe and is part of the United Kingdom. It shares a land border to the south with England and is surrounded by the North Sea on the east and the Atlantic Ocean on the west.

Scotland is a mountainous country that is famous for its fresh water lochs (lakes). There are over 600 square miles of them. (One of the most famous is Loch Ness, where a mysterious monster is said to live.)

EDINBURGH

Scotland's capital is Edinburgh (which is also the city where Puppet State Theatre is based). Theater lovers from around the world come to Edinburgh for its famous theater festival.

Other major cities are Aberdeen, Dundee, and Glasgow.

KNOWN FOR

Scotland is also famous for its clans, kilts, medieval castles, and poetry.

Well-known people from Scotland include:

- Walter Scott
- Robert Louis Stevenson
- Arthur Conan Doyle
- David Hume
- The actor Sean Connery

ABOVE: Scotland's largest lake, Loch Lomond, surrounded by mountains.
Image courtesy of loch-lomond.net.

OTHER FACTS

Currency: Pound Sterling (£)

Official Language: English

Largest lake: Loch Lomond
(24 miles long)

National Animal: Unicorn



ABOUT THE ART FORM OF PUPPETRY



The Man Who Planted Trees is told using puppets that interact with human actors. The actors in *The Man Who Planted Trees* have double jobs because they are also the puppeteers!

Being a puppeteer is hard work and takes a great deal of practice to perform at a professional level.

Read on to learn more about the tricks a great puppeteer uses to make his or her puppet seem believable to an audience.

EYE CONTACT

Eye contact is a method of having a puppet look directly into the audience, like a human would. This effect gives the impression that the puppet is aware of the audience. In turn, the audience pays more attention to the puppet.

FOCUS

If the puppeteer is visible to the audience, he or she keeps his/her eyes focused on the puppet who is “speaking.” This helps to show the audience where to watch and put their own focus.

LIP SYNCHRONIZATION

A strong puppeteer moves the puppet’s mouth in sync with the voice or words that the puppet is “speaking.” This means that a puppeteer does not move the puppet’s mouth randomly.

Puppeteers also work hard to open the puppet’s mouth extra wide for exaggerated or loud words.



Notice how the Dog puppet is making eye contact directly with the audience and how the puppeteer’s own eyes are focused on Dog.

ABOVE: The Elzéard puppet interacts with a prop: a well and bucket.

POSTURE

Puppeteers pay careful attention to the overall position of the puppet’s body. Proper posture allows the puppet to look more natural. This is done by keeping the puppet’s head eye level with the audience and not allowing the body to lean too far from one side or another.

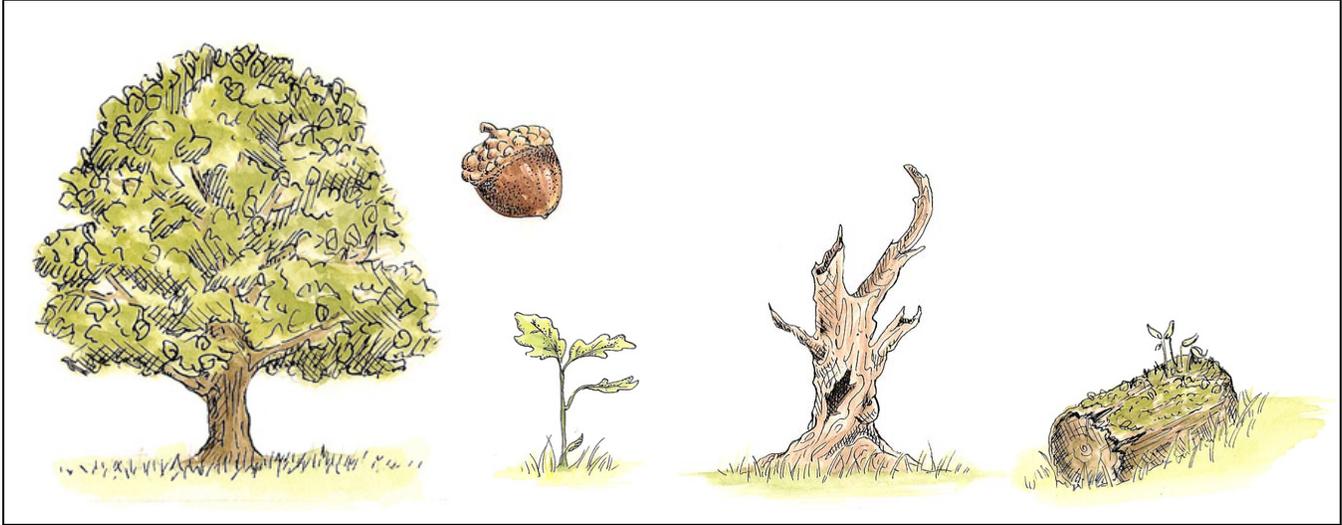
PROPS

Puppets interact with objects as realistically as possible. Examples of the use of props with puppets in *The Man Who Planted Trees* includes when Elzéard “drinks” his pail of water or “inspects” his acorns.

VOICE THROWING

Puppeteers work to project their voice away from their mouth. This makes it seem as if it is the puppet that is talking. Usually, the practice is combined with the puppeteer lowering their head and/or moving their mouth as little as possible.

ABOUT TREES, pg. 1



Author Jean Giono once said that he wrote *The Man Who Planted Trees* because he wanted to “to make people love trees, or more precisely to make people love planting trees.”

Read on to learn more about trees and the many amazing things that trees do for us and our world.

WHAT IS A TREE?

A tree is a woody perennial plant. A tree usually has a single stem or trunk from which limbs or branches sprout some distance from the ground. Limbs and branches carry a spreading crown of leaves. A tree is a living thing with its own natural life cycle through which it germinates, grows and dies. Stages include:

1. Seed
2. Sprout
3. Sapling
4. Mature Tree
5. Snag (Dead Tree)
6. Rotting Log

Which of the stages of a tree’s life cycle are depicted in the illustration, above?

TREES AS HISTORIANS

Trees keep track of history. As they grow, trees record weather, physical events and the passage of time. Some species, such as the bristlecone pine, can live to be thousands of years old.

A tree records “memories” within the structure of its trunk. Everything that impacts the tree throughout its life – from insects, wounds and disease to floods and fire – leaves its mark.

Sometimes the impact will result in rapid or slower growth, which is shown by different ring sizes in the cross-section of a tree. Trees growing in regions where there are marked seasonal changes record their growth in rings. In these regions trees have distinct period of growth and dormancy. A growth ring usually appears each year in dry or cold weather with the outer rings the most recent.

GROWTH RINGS

- ⇒ A narrow ring indicates a season in which the tree grew very little, during a drought, for example.
- ⇒ A wider growth ring indicates a season in which the tree grew a great deal.
- ⇒ Trees growing in regions with no distinct seasonal change, such as tropical rainforests, do not have annual growth rings because their growth is fairly constant.



Image courtesy of idahoforests.org.

ABOUT TREES, cont. pg. 12

ABOUT TREES, pg. 2



ABOVE: Hikers walk through an old-growth forest.

BENEFITS OF TREES

Trees are amazing and provide many important benefits to the earth and all living things:

CLEAN WATER

Trees' hair-like root fibers help filter groundwater. They trap nutrients and pollutants that are potential contaminants. Tree roots filter pollutants out of soil, producing clean water.

CLEAN AIR

Trees produce oxygen and absorb carbon dioxide. They also capture particulates (dust, pollen, pollutants).

SOIL PROTECTION AND NUTRIENTS

Tree roots hold soil in place so it cannot be easily blown away by wind or washed away by water. Without trees, heavy rains can wash soil into streams and rivers, creating avenues for nutrient pollution and habitat destruction, and increasing the likelihood of flooding.

The decaying of dead tree parts returns nutrients to the soil.

MINERAL AND NUTRIENT RECYCLING

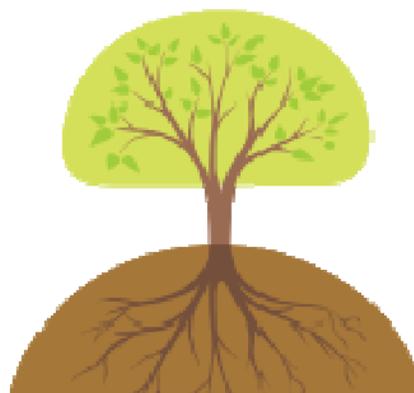
Throughout their lives, trees cycle and utilize minerals and nutrients from the air, water, and soil.

HABITAT FOR WILDLIFE

Trees and forests provide homes for many different species of animals.

RECREATION AND HEALTH

Forests are great places for activities such as hiking, backpacking, skiing, hunting, and bird watching. Looking at trees makes people feel better. Studies have shown that hospital patients who can see trees outside their windows tend to recover more quickly than those who look out on pavement and buildings.



MEDICINES

Trees provide substances with medicinal value. For example, taxol, a drug extracted from the bark of the yew, is used in treating cancer.

ECONOMY

Making room for trees in our cities provides job opportunities and a healthier environment. The forest industry also provides jobs for many people, from cabinetmakers to homebuilders. Trees planted for energy conservation help consumers save money.

ENERGY

Trees are used to shade homes and businesses, keeping them cool and conserving energy. In some parts of the world, trees are the main source of fuel for cooking food, warming houses, and running small businesses.

LEFT: Tree roots below the ground hold soil in place.

PRE-SHOW EXPLORATION ACTIVITIES, pg. 1

1) THE WOMAN WHO PLANTED TREES: WANGARI MAATHAI

Explanation: In this activity, students will research Wangari Maathai, who won a Nobel Peace Prize for her work in Kenya re-planting trees.

Goal: To develop students' understanding that environmental protection promotes peace and quality of life.

When: Before the performance

Materials:

- Computers with internet access or books on the "Green Belt Movement"
- List of research questions

Activity:

1. Share with students background information on Wangari Maathai and how her story relates to the fictional story of *The Man Who Planted Trees* (provided in right-hand column).
2. Ask students to conduct research to learn more about Wangari Maathai's work. Students should strive to answer the following questions:

- Why was it so important that trees be planted in Kenya 35 years ago?
- What is the Green Belt Movement doing today?
- What were the results 5 years after the movement began? 10? 35? What about the future? In 50 years? 100?

Follow-up Questions:

1. What surprised you about Wangari Maathai and the Green Belt Movement?
2. How did working to improve the environment lead to Wangari Maathai winning an international award for Peace?
3. Does America have a need for a person like Wangari Maathai? Why or why not?
4. Where should trees be planted? In cities? In your neighborhood?
5. What do you need to do if you want to plant a tree? What steps should you follow?

Additional background information:

The Man Who Planted Trees is a made-up story, called fiction. Wangari Maathai was a real woman who lived in Kenya and planted trees. Ms. Maathai really loved the story of *The Man Who Planted Trees*, and wrote the forward for the twentieth anniversary edition of Jean Giono's book. In the forward, she tells this story:

'I first became aware of the importance of trees as a little girl, when my grandmother told me that I should not collect wood from a nearby fig tree because it was a gift from God.



Even though I didn't know then why fig trees were special, I later understood that the fig trees deep roots tapped into underground streams and brought water to the surface, replenishing the land and bringing it life."

Source: *The Man Who Planted Trees* by Jean Giono, p vii. Chelsea Green Publishing Company.

Ms. Maathai began the "Green Belt Movement" when she started to plant trees in Kenya in 1977, and now over 40 million trees have been planted due to her dedication. Wangari Maathai was awarded the Nobel Peace Prize for her efforts in 2005. She was the first African woman to receive that prize, a source of enormous pride for women everywhere.



PRE-SHOW EXPLORATION ACTIVITIES, pg. 2

2) WHAT DOES A PLANT EAT?

Best for: Grades 3-5

Explanation: Students will plant and observe lima beans in four different conditions to test what plants need to grow.

Goal: To understand that all organisms need energy and matter to live and grow.

Materials:

- 4 lima bean seeds
- Soil
- Water
- 4 clear plastic cups

Activity:

1. Plant a lima bean in four different cups.
2. Label each cup and place it in a location so the following conditions are met:

- Cup 1:** Provide the bean seed with soil, water and sunlight
- Cup 2:** Provide the bean seed with soil and sunlight but no water
- Cup 3:** Provide the bean seed with water and sunlight but no soil
- Cup 4:** Provide the bean seed with soil and water but no sunlight

3. Water the seeds each day (except for Cup # 2). Ask students to predict the growth of the seeds. Which will grow the best? Fastest? Slowest?
4. After a week, ask the students to check the progress of each bean seed. Were their predictions correct? Continue caring for each bean seed at least until the seed in cup #1 has outgrown its cup.
5. Discuss the difference in the growth observed by the beans in each cup. What elements are needed for plants to grow? What happened to the bean in cup #4? (Note: the stems and leaves will likely grow, but not as green as the plant did not receive sunlight and could not produce chlorophyll.)

To extend this activity, ask students to select one kind of plant to study. Research the food chain associated with your plant. How is your plant a primary source of energy and matter for other organisms?

3) CAN A PLANT BLEED?

Best for: Grades 6-8

Explanation: Students will explore how sugar, water and minerals are transported in a vascular plant.

Goal: To understand how water and nutrients are transported within a plant.

Materials:

- Celery
- Red food coloring
- Cup
- Water

Activity:

1. Fill a cup with water and add a few drops of red food coloring.
2. Place a stalk of celery (with the leaves pointing toward the ceiling) in the water. Leave it overnight.
3. The next day, ask students to look at the celery. What do they see? (Overnight, the red water will have traveled up the tubes of the celery. The celery leaves will have turned red or pink as water reaches them through the xylem, or the path the water takes from the roots of the leaves, to the top of the plant.)

Follow-Up Questions

1. What conducts red food color up into the stalk? The leaves? How does it fight gravity?
2. Are xylem and phloem like human arteries and veins? Why or why not?
3. What if we tried a lettuce leaf? Or a tree branch? Would the experiment work then? Why or why not?
4. Can stems absorb pollutants or dangerous materials?
5. What if we water a planted seed exclusively with food colored-water? Will that affect the seed? Or the plant?

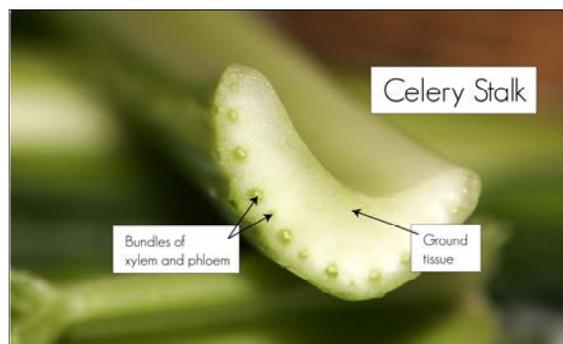


Image courtesy of ocv.openhighschool.org.

POST-SHOW ASSESSMENT AND DISCUSSION, pg. 1

DISCUSSION QUESTIONS

Elzéard's Impact

1. How did Elzéard's tree planting benefit local people, plants and wildlife?
2. Elzéard planted a forest over a long period of time. What results would he have seen after a day of planting? After a year? After 25 years? After 50 years?
3. What things can you do to make a positive impact on the environment?
4. Was it important to Elzéard that others knew that he was the one to plant the trees? Why or why not?

Fiction vs. Fact

1. The creators of the performance have said, "Fiction can be full of truth. Maybe we all have a supply of acorns hidden away somewhere." What do think they mean by that?
2. Elzéard is a fictional character. Can you think of an example of a real person who has made a tremendous positive impact on the environment?

Points of View about the Environment

1. Discuss the different characters' points of view about the environment and forest:
 - Jean
 - Charcoal burners
 - Elzéard Bouffier
 - Government Official
 - Member of Parliament
 - Timber merchants
 - Villagers
2. What motivates people and businesses in their approach to the environment: money, publicity, votes, community benefits, prizes and awards? What limits our/their ability to be green?

Puppetry

1. What did you notice about the puppets in the show? What did they look like? How were they manipulated?

Multi-Sensory Effects

1. How did the multi-sensory effects change the theater experience?

POST-SHOW ASSESSMENTS

1) WRITE A REVIEW

Goal: To write a review of the performance.

Explanation: In this activity, students will reflect on the performance by writing their own review.

Activity:

1. Ask students to imagine that they are a critic for the school newspaper. They are going to write a review of *The Man Who Planted Trees* to inform others about what they experienced.
2. In the review they should describe with detail:
 - what they saw
 - what they heard
 - how the performance made them feel
 - what the performance reminded them of
 - what their favorite part was and why
3. Remind students that they must paint a picture of the experience with their words so that others who did not see the performance can imagine it as vividly as possible.

Follow-up Question:

1. What did you include in your review? Why was it important to include?

2) WRITE AN ORIGINAL SHORT STORY

Goal: To write a short story inspired by *The Man Who Planted Trees*.

Explanation: In this activity, students will write a short story about a person who accomplished something extraordinary.

Activity:

1. Invite students to write a short story about a man or woman with a notable achievement.
2. The story should be titled "The Man Who _____" or "The Woman Who _____".
3. In the story, students should include how this man or woman accomplished their goals, no matter how seemingly impossible.

Follow-up Question:

1. How was your character like Elzéard? How was he or she different?

POST-SHOW ASSESSMENT AND DISCUSSION, pg. 2

3) CREATE A PUPPET AND SHOW

Best for: Grades 3-5

Explanation: In this cross-curricular activity, students will create a puppet and then write a short skit around their puppet.

Goal: To better understand the art form of puppetry and to practice creative writing and performance skills.

Materials:

- Clean socks
- Buttons
- Needle and thread
- Fur fabric or yarn
- Fabric glue
- Scissors
- Felt
- Felt-tip pen or permanent marker
- Shoebox or cardboard box to “carry” the puppet

Activity Part I:

1. Place the sock on your hand and mark with a pen where you would like the eyes.
2. Take two buttons and glue or sew them to the sock to make eyes.
3. Use a felt tip pen to draw the nose.
4. Glue or sew fur fabric or yarn to the sock’s head for hair.
5. Cut out ears, arms, legs, and a tail from felt and sew or glue to the sock to finish your dog.
6. Use a box as the base for the sock puppet. You can decorate a basket and cut a hole in the bottom and manipulate the puppet through the basket.
7. Encourage students to be creative and find new ways to manipulate their puppets.

Activity Part II:

1. Using their new puppet as inspiration, ask students to write a short skit.
2. Students should first develop their puppet’s character:
 - What is their puppet’s name?
 - What is their voice like?
 - Do they have any distinctive mannerisms?
3. Students should next establish a plot, setting, and conflict.
4. Encourage students to try showing the events of the story rather than using dialogue, like in *The Man Who Planted Trees* performance.
5. Students should also think of ways to build tension or suspense in the plot.
6. If they would like, students may pair together to combine characters and create new skits. They may also gather additional props from home or make sets to prepare to perform their skits in front of the class.

Follow-up Questions:

1. What was challenging about this activity?
2. What did you notice about the ways that puppets were used in *The Man Who Planted Trees*? What did you notice about the puppeteers?
3. Was it helpful to create the character for your puppet first before creating your plot? Why or why not?



Examples of simple hand puppets. Images courtesy of life123.com; ordinary-gentlemen.com; and pixox.biz

POST-SHOW ASSESSMENT AND DISCUSSION, pg. 3

4) NATURE STORY SHOW

Best for: Grades 6-8

Goal: To reflect upon meaningful interactions with nature in writing.

Explanation: In this two-part activity, students will begin by writing a first draft in response to a prompt about a nature. They may also create a revision of their writing that they will perform as an actor/puppet.

Materials:

- Pen/pencil
- Paper
- “Object” puppets that students bring in

Activity Part I:

1. Brainstorm as a class a list of things we encounter in nature: rocks, trees, mountains, rivers, lakes, clouds, sky, grass, flowers, feathers, birds, eyeballs. Allow the students to name anything in nature, but point out man-made objects and put them in a separate list if students name them.
2. Ask the students to choose one or two of the “things in nature”.
3. Ask the students to write about an experience with their chosen object/creature:
 - Describe what it was;
 - how you felt;
 - what made you remember that moment.
4. Have students share their writing with a partner.

Activity Part II:

1. Invite students to revise their written pieces so that they will be able to perform them.
2. Have students create or find a puppet that can represent the “thing in nature” that they chose to write about.
3. Like in *The Man Who Planted Trees*, each performer will stand behind the puppet when making it talk. When delivering their piece, students should remember to keep their eyes focused on the puppet so the audience knows where to watch.

Follow-Up Questions:

1. What makes a moment in nature memorable?
2. What was challenging about the puppet activity?
3. How did “being” your nature object as a puppet change your thoughts about your nature object? Why?

5) DESIGN A TREEHOUSE!

Best for: Grades 3-8

Goal: To imagine and design a tree home.

Explanation: Students will design and draw a tree house that benefits its residents and local ecosystem while not harming the tree.

Materials:

- Pencils/Markers/crayons/paint
- Drawing or construction paper
- Reference drawings of different ecosystems and tree types (or internet access)

Activity:

1. Introduce activity by asking students what their favorite place in their home is, and why. They may write their answers or discuss them.
2. Then ask students if they ever feel the urge to “get away” from home. What are the basic things they would need to be comfortable?
3. Ask students to define what a home is. From the class definitions, create a list of “requirements” for a home (a roof, a floor, walls, windows?).
4. Students begin independent work by choosing what type of environment they want their tree home in (a residential neighborhood, a rainforest, a desert...) and who the home is for (a person, a raccoon, a bat, a bird). They will choose building materials, and draw their tree house. (Add grade appropriate requirements, such as a crayon drawing including the tree for younger students, and a scale-model drawing for older students.)
5. Finally, students present their drawings to the class or a small group.

Follow-Up Questions:

1. How does your home benefit its residents? Its ecosystem?
2. What considerations did you make so that your home’s construction does not harm the tree?



Ever want to live in a tree? Some architects at MIT (Massachusetts Institute of Technology) are developing a plan for living trees to be part of a home!
Image courtesy of archi-node.com.

RESOURCES AND SOURCES



BOOKS

The Man Who Planted Trees
by Jean Giono

*Bark: An Intimate Look at the
World's Trees*, Photography
by Cédric Pollet

For grades 3-5:

The Curious Garden
by Peter Brown

How the Ladies Stopped the Wind
by Bruce McMillan

Planting the Trees of Kenya
by Claire Nivola

*The Man Who Lived in a Hollow
Tree* by Anne Shelby

Hope is an Open Heart
by Lauren Thompson

Wangari's Trees of Peace
by Jeanette Winter

*Johnny Appleseed: the Legend
and the Truth* by Jane Yolen

For grades 6-8:

Forest Born
by Shannon Hale

Toby Alone
by Timothee de Fombelle

The Unfinished Angel
by Sharon Creech

CLASSROOM RESOURCES

Video:

"Forest Man."

16-minute documentary about an Indian man who has been planting hundreds of trees on an Indian island threatened by erosion.

<https://www.youtube.com/watch?v=HkZDSqyE1do>

Websites:

American Forests. www.americanforests.org

Alliance for Community Trees. www.actrees.org

The National Arbor Day Foundation. www.arborday.org

Kids' Gardening Projects. www.kids-outdoor-activities.suite101.com

Project Learning Tree. <http://www.plt.org/>

Trees Are Good. <http://www.treesaregood.com/>

STUDY GUIDE SOURCES

"Facts about Scotland." Project Britain: British Life and Culture.

<http://www.woodlands-junior.kent.sch.uk/customs/questions/britain/scotland.htm>

"The Man Who Planted Trees." Holden and Arts Associates Website.

"The Man Who Planted Trees Study Guide." Orange County Performing Arts Center. http://www.scfta.org/home/Media/education_bus_ins/Man_Who_Planted_Trees_Teacher_Guide.pdf

Puppet State Theatre. Official Website. <http://www.puppetstate.com>

School of Puppetry. <http://www.schoolofpuppetry.com.au/home.php>