



Title: Johnny Appleseed, a Tree Steward

Time 60 Minutes plus tree planting and planning time

Subjects: Science, Social Studies, Language Arts

Objectives

- Listen to gain knowledge and share information and perform a task (relating to planting and caring for trees).
- Make inferences and draw conclusions using picture clues, story text and prior knowledge.
- Explain the interdependence relationships between humans and trees.
- Identify states mentioned in story.

Standards

Language Arts Standard 6: Use reading skills and strategies to understand and interpret a variety of literary texts.

- Benchmark # 1: Use reading skills and strategies to understand a variety of familiar literary passages and texts (e.g., picture books, predictable books).
- Benchmark # 5: Relate stories to personal experiences.

Science Standard 14: Understands how human actions modify the physical environment.

- Benchmark #1: Knows how people affect the environment in negative (e.g., cutting trees, burning forests) and positive (e.g., becoming stewards of environment, planting trees) ways.

Language Arts Standard 8: Use listening and speaking strategies for different purposes.

- Benchmark # 1: Make contributions in class and group discussions.
- Benchmark # 2: Ask and respond to questions.
- Benchmark # 5: Use grade level appropriate vocabulary in speech (e.g., terms related to parts of tress).

Geography Standard 17: Understands how geography is used to interpret the past.

- Benchmark #1: Knows how areas of a community have changed over time (in terms of, e.g., size and style of homes; how people earn their living; changes in the plant and animal population).

Materials

- Apple
- Knife to cut apple
- A copy of “The Story of Johnny Appleseed” by Alik
- United States map
- Tree to plant (Note:If planting a tree is not an option, students can “adopt” a nearby tree and observe changes in the tree during different seasons. Students can keep a journal to monitor the changes.)
- Tools to plant tree



- Place to plant tree
- Johnny Appleseed stamp worksheet provided below
- Johnny Appleseed fun coloring worksheet provided below

Description

Trees are the main feature of forests. Forests have trees of many different species, sizes, and ages. Trees have four basic parts: roots, trunk, branches and leaves. The roots absorb water and nutrients from the soil, anchor the tree to the ground, and store food materials. The trunk holds the tree upright and transports nutrients and water from the roots to the leaves. The branches help carry materials from the trunk to the leaves. The leaves make its own food from the sun.

Trees and forests are located worldwide. Tropical rain forests are located near the equator in South America, Central America, Africa, Southeast Asia, and Australia and neighboring islands. Temperate rain forests are located along the Pacific coast of the US and Canada. New Zealand, Tasmania, Chile, Ireland, Scotland, and Norway are also homes to temperate rain forests.

Trees are wildlife habitats and useful resources for humans, Trees prevent soil erosion, produce oxygen and reduce carbon dioxide in the atmosphere by means of photosynthesis, and moderate ground temperature. Trees provide food such as nuts and fruit. Additionally, trees in forests supply people with raw materials for wood, paper, and cardboard products. Fuel for cooking and heating and fats, gums, and oils for manufacturing are also derived from trees. Trees also give humans scenic beauty, shade, and recreational areas for camping, hiking, hunting, and bird watching. However, forests are changing and trees are being destroyed due to damaging human activities and habits.

Despite their usefulness and importance, trees and forests throughout the world are being harmed by human behavior. Deforestation, the clearing of trees, happens in areas of rapid population growth for farms, cattle ranches, towns, and timber. In tropical rainforests trees are cut to clear land for growing crops and raising livestock. Destructive agricultural procedures not only destroy trees but also deplete soil in burned forests of nutrients and reduce biodiversity when only one crop is planted on farmland. In addition, deforestation causes a loss of topsoil and plant roots which can lead to harmful flooding in affected areas. Logging is another prime cause of deforestation around the world. Trees are cut for lumber, paper, and cardboard and used heavily in the packaging of manufactured goods. Deforestation has also caused many species of plants and animals to become endangered or extinct.

Industrial pollution also hurts trees and forests when automobiles, power plants, factories, agricultural and household chemicals release harmful substances into the environment. Acid rain can disrupt photosynthesis in plants. It weakens them causing them to be more susceptible to disease. Smog can damage plant proteins and reduce the production of seeds making plants less resistant to drought and diseases. Pesticides from farming and yards can enter waterways that flow to trees and forests. The chemicals in these pesticides can kill trees or impair their growth. Oil and toxic spills contaminate forest soils preventing plant or tree growth in polluted areas.

Many scientists believe that human activities are the prime cause of climate change and global warming. Fossil fuels burned by factories, power plants, and motor vehicles release carbon dioxide as they burn.



Global warming is caused when greenhouse gases, such as carbon dioxide, accumulate in the atmosphere of the Earth trapping the heat of the sun. Trees help prevent global warming by absorbing and using carbon dioxide during photosynthesis. However, deforestation means significantly less trees are available to remove carbon dioxide from the air and release oxygen. Carbon makes up half of the weight of the tree. When trees are burned in rain forests to clear land, carbon is released and this also adds to the global warming problem.

However, human activity can fortunately help trees and forests with mindful changing of behaviors. People can plant trees. Less trees will be destroyed when people reduce reuse, and recycle wood and paper products. Although rainforests may be far away from our homes the negative impact of their decline has far reaching effects. It's not too late to make a difference.

Kid's Speak: Trees are the oldest living things and largest plants on Earth. Trees are important to life on our planet. Trees provide shade and beauty. They clean the air, help keep temperatures balanced, cut down on noise, provide habitat and food for wildlife and people, and reduce soil erosion. We use products from trees every day. People need to take care of trees like trees take care of people. We can reduce, reuse, and recycle so less trees are destroyed. We can also plant new trees.

Eco-fact: Recycled paper uses 64% less energy than making paper from new wood pulp and saves many trees.

Before Activity Tree Planting Activity: Part One:

- Teacher will hold up an apple and say when I count to three please tell me what this is. 1, 2, 3. Students respond: APPLE
- Teacher then says when I count to three please tell me where apples come from. 1, 2, 3. Students respond: TREES (or apple trees)
- Teacher can begin to develop a word web with an apple shape in center.
- Next teacher will cut open the apple and talk about the parts of the apple (seeds, core, skin).
- Teacher will explain that the seeds you see inside this apple when planted grow into new apple trees.
- Teacher will tell students that an apple is a kind of fruit. A fruit is the part of a plant that contains seeds, is often edible or able to be eaten, is colorful and fragrant or sweet smelling. Fruit grows on trees.
- Continue to add relevant words to word web.

Part Two:

- Teacher wonders aloud if anyone knows what the word *steward* means and accepts several responses.
- Teacher explains that someone who is a steward takes care of and watches over something. For example, you may have a pet that is special to you that you take care of and keep safe and happy. You are the steward of your pet. I have a friend who has beautiful gardens in her yard. She weeds and waters her flowers. She plants them in places where they get the right amount of sun. She is a steward of her garden.



- Teacher says that today she is going to read a book about a man who really lived over 200 years ago and is a famous steward of trees- apple trees. Teacher asks students who Johnny Appleseed is? Teacher and accepts several responses.
- Teacher explains to students that Johnny was a real man named John Chapman. Many books have been written about Johnny and his adventures traveling around our country. Johnny Appleseed has become a legend because some of the stories seem to be exaggerated overtime. He traveled by foot or walked and carried very little with him. The legends say that he wore his cooking pot on his head like a hat so he did not need to carry it.
- Teacher shows students a large, simple physical map of the United States, a primary physical map with only the state boundaries. Locate Massachusetts where Johnny was born and locate where the state where the children live. As teachers reads the story, states that Johnny visited and traveled through can be found on map.
- Teacher can explain to the students that at this time in our history people were starting to leave the cities and towns on the East Coast (locate on the map) and were moving west to look for new places and more space for homes and farms. It was wilderness with no roads, homes, and villages.
- Introduce and read “The Story of Johnny Appleseed” by Alike. During the reading teacher can point out pictures that represent the 1700’s time period. Teacher can also ask periodically during story how Johnny is being a steward to the land and trees.

Conducting Tree Planting Activity:

- Teacher tells students that one person *can* make a difference in the world. Think of the all of people Johnny helped and the trees that he planted in the 50 years he traveled around the country.
- Teacher explains to students that we will be doing something very special.
Like Johnny our class is going to plant a tree. Trees are very important to our planet. Trees help keep our air clean,hold our soil in place, keep our world beautiful, and provide food and shelter for living things. We will be stewards of our tree and watch it grow and change. When you are in the higher grades you can still watch our tree grow. If you visit this school when you are an adult, you might still be able to see our tree.
- At a convenient time class will plant tree. (Note: Prior to planting tree, teacher or interested parent will need to find a suitable location in schoolyard or other spot in community. Funds will be needed to purchase tree. A visit to a local nursery or garden shop for advise on planting and suggestions on appropriate tree for designated spot is necessary. Shovel for digging and other tools will be needed. Parent volunteers could be very helpful in many steps of this activity.)

After Planting Tree Activity:

Part 1:

- Teacher will lead a concluding discussion reflecting on tree planting activity. How are we like Johnny Appleseed ? How does it feel to be a steward of the environment ? How are trees important to people?
- Teacher can tell students about her plans for class to monitor the growth of their tree and what they need to do to care for their tree.

Part 2:

This activity provides a quick and active method to assess student learning on the various topics covered in this lesson: apples, Johnny Appleseed, being a steward of nature, and planting a tree.

- Teacher divides the class into two groups: the inside group and the outside group. An even number of people is required for this activity. Teacher explains to class that they will form two circles one inside the other. The inside group will form a big circle in the center. The outside group will form a bigger circle around the inside group. Inside circle students will walk to the left and outside circle students will walk to the right. Teacher will give the direction for students to walk around in the circle and a few seconds later teacher will give directions for the students to stop. Students turn and face the person now opposite them in the other circle. Students will respond to teacher prompt topic. Repeat procedure stopping for discussion prompts.
- Begin activity. Students will take places in assigned circle. Teacher will give the direction for students to walk around in the circle and a few seconds later teacher will give directions for the students to stop. Students turn and face the person now opposite them in the other circle. Teacher will prompt inside students to tell outside student : What does steward mean or what does a steward do ?
- Repeat activity as many times as needed. Alternate role of talker and listener between the inside and outside circles each time activity is conducted.

Prompts:

Examples of questions for teacher to pose to students while in circles.

- What does steward mean or what does a steward do ?
- Name a state that Johnny Appleseed passed through on his journey.
- Name the state where Johnny Appleseed was born and spent his life as a boy.
- Why was Johnny Appleseed traveling around the country to plant apples?
- Name a part of an apple.
- Is an apple fruit or vegetable? Why?
- What was your favorite part about our class tree planting ?
- What was your favorite part of the Johnny Appleseed story ?

Part 3:

- A stamp was designed to honor Johnny Appleseed. Show a picture of stamp to students. Discuss the stamp design (included on the website above).
- Explain to students that they will now create their own stamp design (on the provided worksheet) and write two sentences about their design.
- Students can share stamp designs with classmates or teacher can display them on a bulletin board.

Adaptations:

- Part of this lesson (the teacher read aloud) could be conducted outdoors sitting under a tree.
- If planting a tree is not an option, students can “adopt” a nearby tree and observe changes in the tree during different seasons. Students can keep a journal to monitor the changes.
- For a more difficult version or for a book comparison “Johnny Appleseed” by Steven Kellogg may be used as an alternative.