



TREE TRAILS

4

★ SECONDARY ★

★ STUDENT SERVICE LEADER ★

Arbor Day is the celebration of trees where we live, work, learn and play. Communities set aside one day each year to plant and care for trees, usually on public property, such as a school or park. Students can provide the leadership for a project to plant, care for or celebrate trees – either on school grounds or in the surrounding community.

Goal and Objectives

Goal: Students will design and conduct a service learning project.

Objectives: Students will

1. Conduct an informal or formal needs assessment for services for the class or community.
2. Research forestry organizations and resources that can assist with implementing and evaluating their service learning project
3. Design, develop and conduct a tree or forest related service learning project for the class, and/or parents, school administrators and/or the community.
4. Apply knowledge gained from the Tree Trails modules to the service project
5. Develop, administer and analyze an evaluation of the Student Service Learning Project.

Materials

General

- Tablet(s) or computer(s) with internet access
- Projector and screen
- White board or chart paper and markers
- Tree Trails Portfolio, Student Learning Log/Journal

Handouts

- Sample Needs Assessment Format
- Service Learning Sample Projects
- Student Service Learning Project Invitation Sample
- Tree Tag template
- Certificate of Achievement template
- Career Charades
- Campus Care and Greening Plan

Time and Internet Links

Instructional Time: 3 sessions, 45 minutes each

Project Presentation: 1-2 hours

- Careers in Forestry & Natural Resources, <http://forestrycareers.org>
- Natural Inquirer Scientist Card Series
<http://www.naturalinquirer.org/Scientist-Card-Series-v-168.html>
- Arbor Day Foundation, <http://www.arborday.org>
- Texas A&M Forest Service, Urban Forestry
<http://tfsweb.tamu.edu/urbanforestry>
- Texas Tree Planting Guide, <http://texastreeplanting.tamu.edu/>
- Keep America Beautiful Student and Leader Learning Guides
Community Service Learning
<https://www.kab.org/our-programs/education/student-and-leader-learning-guides>
- Keep America Beautiful, Submit Your Stories
<http://blog.kab.org/>
- Concordia University
Introduction to creating cross-curriculum comics and graphic novels
<http://bit.ly/2dOdxGU>
- ReadWriteThink, Comics and Graphic Novels lesson
<http://bit.ly/2cVtVJ2>

Instructional Procedures

I. Engage/Excite

1. Conduct a review of the tree and forest topics students have learned. Ask students if they can name careers related to the topics. For example, tree identification careers may comprise of foresters, biologists, landscape architects and/or arborists.
2. Move students into small groups to explore the forestry career websites. Have them review a variety of careers and take notes on the components that are of interest. Additionally, you may consider having students play Career Charades.
3. Ask students to think about which career they might choose or if there is a different related career they would prefer. Discuss activities each career might perform. Tell students they will have fun creating a project that uses some of the skills these careers require. Have students write in their Learning Logs/Portfolios their first choice of a career and name activities the job might require.

II. Explore

1. Lead a discussion about the importance of student to be leaders who can inform their school and community about the virtues of trees and forests, their beauty and the enormous benefits and values we receive from them. Tree Trail students have a special opportunity few schools have experienced; an in-depth study of trees and forests that opens the door to all fields of study. Now they can share their knowledge as student leaders by providing their services to the school and community.
2. Explore services that students could provide for their class, school or community related to the Tree Trail modules, such as exploring careers portrayed in Charades or leaders who provide information about how trees and forests improve our way of life. Record their ideas on a chart/whiteboard.
3. Let students know that the total service project and activities may be performed by an individual, teams or as one class project. It is the decision of the teacher and students which student service leader projects to provide and the students involved. However, every student must play a role.

Teacher Tip: The following list of ways students can become service leaders is provided as a suggestion for the class to consider. To review the basics of a service learning project and find templates for organizing a project, review the Keep America Beautiful Leader Guide Service Learning section.

4. If deemed appropriate, display on a chart/whiteboard the following sample learning services as possible choices. While Arbor Day is listed as a separate project, most Arbor Day activities can be incorporated into any service learning project. It is up to the class and teacher to decide the most appropriate learning service.



II. Explore continued

Suggestions:

- a. Plan and host an Arbor Day event
Coordinate dates, (school calendar, state Arbor Day and National Arbor Day), brainstorm activity ideas, create a schedule of events, select hosts or docents, assign tasks, and plan an evaluation for participants.
 - b. Plant a tree
Research where trees are needed, what trees are best for the site, who will fund the tree(s), what materials are needed and who will plant the tree, who will water the tree, plan dedication of the tree and develop and conduct an evaluation of the activity.
 - c. Install signage for the Tree Trail
Prepare and install signage for the Tree Trail, one for each trail tree. A template is provided to develop a marker for each tree. Possible items to include on a tree sign: tree outline, tree number, common and scientific name, measurement, date entered as a trail tree, etc. Place signs in holders and on stakes, decide where to place in ground and install the signage.
 - d. Host a Tree Trail tour
Invite other classrooms, administrators, parents, and guests. Prepare a Tree Trail Tour Outline that includes objectives for the tour, route of tour, schedule. Develop a narrative at each stop, evaluate tourist and create a brochure for the Tree Trail Tour. Include audio or visuals as needed.
 - e. Create a video or podcast tour
If not already created, develop videos or podcasts that can be uploaded on the school website. Prepare an outline for the script, develop the goal, purpose and objective statements, write a narrative for each tree. Include benefits, tree history or biology, future plans for the Tree Trail and develop an evaluation of the project.
 - f. Create a Campus Care and Greening Plan
If not already created, develop a plan that will contribute toward maintaining their Tree Trail and improve benefits to the total school landscape. Consult local experts, develop a resource list, write a plan. Share with the school and community groups.
5. Have students use all ideas and suggestions to develop, conduct and analyze a needs assessment to determine the best service project for the class, school and community. Survey other classes, teachers, administrators and parents using informal or formal assessment questions. Once the needs assessment results are tallied, the class will decide on specific student service leadership to provide.
 6. Divide the class into small groups to develop the needs assessment. See the Sample Needs Assessment Format handout or the Keep America Beautiful's Student Learning Guide.



II. Explore continued

7. Conduct the needs assessment. Remember to involve as many school personnel, such as other teachers and students, administrators, maintenance staff, etc. as possible.
8. Project the results of the needs assessment to review. Allow students to use the results to decide on the service project they want to perform. Organize the students to work on their services. Students may be assigned individual or group tasks. If the class chooses one service, assign individuals to a task for that service.

III. Explain

1. As appropriate, assist students by providing a planning guide such as in the Keep America Beautiful Leader and Youth Learning Guides. Discuss the components their project should contain. Develop a schedule for students to work on their project. Include a project timeline and have students check progress toward completion or have the students make their own project timeline to share or post.
2. Provide the materials needed and plan the activities to complete the project within the preferred time period. Encourage students to plan on taking pictures and/or use a variety of media during their project and its development.
3. Remind students to develop an evaluation form for the service project chosen. It may look like the elementary module evaluations but it may have as few as four to five questions.
4. Inform students that they need to develop an invitation for guests to attend the dedication of the project. Provide a sample invitation and get feedback from the students. Then develop the chosen invitation format.

IV. Extend/Elaborate

1. Provide time for students to work on their Service Learning Project(s). Periodically check on their progress. Post a notice and/or a list of the statuses as they are completed.
2. Have students complete invitations for the guests they wish to invite, including the principal, other classes and special guests such as public officials, the local newspaper and television/media journalists. Provide students with the number of invitations needed for their family and guests and have them complete the invitations and deliver these.

Teacher Tip: Discuss the event with administrators and faculty and decide on a time and location for the project dedication and include on the invitation.

3. Celebrate the Tree Trails Student Learning Project(s) by conducting the Dedication. Present the Student Service Leadership Certificates to the students. Record the presentation, if possible.
4. Remind the students that all visitors or anyone involved in the project should complete an



IV. Extend/Elaborate continued

evaluation form. Have students inform the audience where to leave their completed evaluation.

5. Post the projects on the school website or class WIKI page. If you are working with a Keep America Beautiful affiliate, share your project on their Submit Your Stories website.

V. Evaluate

1. Have students tally the evaluations and summarize the results. Conduct a discussion of the results of the evaluations of the project.
2. Have each student or team share their learning experience with the class by presenting a short synopsis what they did for the project. They may download their pictures and share with the classroom.
3. Have each student self-evaluate how they feel about the effectiveness of their project. Record in their journals. In addition, have students enter their reflections on the Class Blog.

VI. Extra Mileage/Attention

Extra Mileage: Produce a video of the before and after the Student Service Learning Project(s).

Extra Attention: Have students draw and/or describe their favorite part of the Student Service Learning Project. Specifically, students can create a cartoon, comic or short graphic novel to depict an aspect of their Tree Trail experiences, learning, service, etc.

Tree Trails curriculum was developed by Texas A&M Forest Service in cooperation with Texas Urban Forestry Council and was supported by grants from the USDA Forest Service and Keep America Beautiful.



KEEP AMERICA BEAUTIFUL



Sample Needs Assessment Format

Tree Trails Service Learning Project

Name of Survey Participant: _____ Date: _____

Introduction and Purpose of the project:

Deadline to return survey:

List of possible projects, please rank the most to least important (1 being most important):

Suggest other important projects not found in the above list:

Comments and recommendations:

Thank you for taking the time to add your valuable input and assist with our needs assessment.



Service Leader Sample Projects

Plan and host an Arbor Day event

Coordinate dates, (school calendar, state Arbor Day and National Arbor Day), brainstorm activity ideas, create a schedule of events, select hosts or docents, assign tasks, and plan an evaluation for participants.

Plant a tree

Research where trees are needed, what trees are best for the site, who will fund the tree(s), what materials are needed and who will plant the tree, who will water the tree, plan dedication of the tree and develop and conduct an evaluation of the activity.

Install signage for the Tree Trail

Prepare and install signage for the Tree Trail, one for each trail tree. A template is provided to develop a marker for each tree. Possible items to include on a tree sign: tree outline, tree number, common and scientific name, measurement, date entered as a trail tree, etc. Place signs in holders and on stakes, decide where to place in ground and install the signage.

Host a Tree Trail tour

Invite other classrooms, administrators, parents, and guests. Prepare a Tree Trail Tour Outline that includes objectives for the tour, route of tour, schedule. Develop a narrative for each stop and an evaluation for visitors. Create a brochure for the Tree Trail Tour. Include audio or visuals as needed.

Create a video or podcast tour

If not already created, develop videos or podcasts that can be uploaded on the school website. Prepare an outline for the script, develop the goal, purpose and objective statements, write a narrative for each tree. Include benefits, tree history or biology, future plans for the Tree Trail and develop an evaluation of the project.

Create a Campus Care and Greening Plan

If not already created, develop a plan that will contribute toward maintaining their Tree Trail and improve benefits to the total school landscape. Consult local experts, develop a resource list, write a plan. Share with the school and community groups.



Celebrate Arbor Day!

Mr. Carya's class will host a dedication event and tree planting at the Oak Street High School

Meet us at our campus Tree Trail
Friday November 4, 2016 at 10:00am



Please RSVP to 123-456-7890

Take a Tour

**Come on a tree adventure
with Mr. Carya's class!**



Meet us at our campus Tree Trail
Friday November 4, 2016 between 9-10:00am



I am a _____
Tree species

○ on _____ trail. ○
Tree Trail name

I provide ecological benefits like increased property value, improved air quality, stormwater interception, and energy savings valued at

\$

Find our trail online at www.treetrails.org

Certificate of Achievement

awarded to

for their service leadership
in the Tree Trails program at

Date

Teacher



Career Charades

Directions

Ask students if they can name careers related to the modules they have experienced. Start with a review of the module topics and careers associated with them. For example, tree identification is important to foresters, biologists, landscapers and nurserymen. Tell them they are going to play a game of Charades to identify related careers. Discuss the directions/rules for playing Charades and demonstrate or select students to demonstrate the pantomime actions.

Students can either use the cards within this handout, or create their own set using website resources. After the activity, ask students to think about which career they might choose or if there is a different related career they would prefer. Discuss activities each career might perform.

Websites

Careers in Forestry & Natural Resources, <http://forestrycareers.org>

Natural Inquirer Scientist Card Series, <http://www.naturalinquirer.org/Scientist-Card-Series-v-168.html>

Accountant

a person who keeps the financial records of a business or person

Arborist

a person who is trained in properly planting and taking care of individual trees, such as pruning, fertilizing, or controlling disease.

Archeologist

a person that deals with past human life and activities by studying the bones, tools, etc., of ancient people

Christmas Tree Farmer

a person who grows and shapes trees for the winter holiday season



Career Charades

Engineer

a person that designs and creates new systems or structures

Entomologist or Insect Scientist

a person that studies insects

Forester

a person who takes care of forests by planting trees, cutting down trees, etc.

Hydrologist or Water Scientist

a person who studies how water moves through the Earth, the water quality, and water supply.

Landscape Architect

a person who plans and creates large outdoor spaces such as gardens, parks, etc.

Law Enforcement Officer

a person who enforces the law

Mechanic

a person who repairs machines (such as car engines) and keeps them running properly



Career Charades

Nurseryman

a person who owns or works in a place where trees and shrubs are grown and sold

Soil Scientist

a person that deals with the methods used by farmers to raise crops like trees and care for the soil

Teacher

a person who teaches students about certain subjects

Technology or Computer Specialist

a person that uses computers to create and maintain data and maps

Wildland Firefighter

a person puts out a fire that occurs in a wildland area

Wildlife Biologist

a person that manages, protects, and enhances habitat for wildlife

Writer

a person who writes books, poems, stories, news articles etc.



Campus Care and Greening Plan

Instructional Procedures

1. Inform students that resources are available to assist them with developing a Campus Care and Greening Plan. They have become the school leaders as student urban foresters on campus. They will take their leadership as a Student Tree Board to establish a Campus Care and Greening Plan to ensure their Tree Trail and other trees on campus will be maintained in the future for all to enjoy.
2. Move students into small groups and have students follow on their laptops/tables and project the Community Forestry Resources website to review some of the resources they may use. Other resources are: Arbor Day Foundation, Tree City USA, Tree Campus USA, Keep America Beautiful, U. S. Forest Service, Forestry Associations, Garden Clubs, or Nursery & Landscape Associations.
3. Discuss ways they can use these resources to create their Campus Care and Greening Plan. These resources would be easier to use if these were compiled in one list: a Tree Trail Resource List.
4. Have each group research and develop a list of resources on their laptops/tablets. Have the groups share and consolidate the list. As feasible, find a volunteer to assemble the Tree Trail Resource List. Post it on the school website, WIKI page and/or print it as a booklet. Acknowledge the list as valuable contribution to their school, class and community.
5. Take the class outside to revisit their Tree Trail. Ask how the Tree Trail benefits the school and community. Ask what they can do to maintain the benefits their Tree Trail provides. Ask how they can expand these types of benefits and values to the campus landscape. Ask them to think how a Campus Care and Greening Plan could not only maintain their Tree Trail but improve benefits to the total school landscape. Brainstorm ideas for the plan.
6. Form five student committees to develop and carry out the plan. Refer to the Keep America Beautiful Leader Guide's Community Greening section for more planning tools.

Groups

- a. **WHY:** Information Taskforce to inform classmates and the community the benefits and values trees, native and indigenous plants provide and why they need care and maintenance to thrive.
- b. **WHAT:** Action Taskforce to define and sequence what actions are needed to develop and maintain improvements to the school landscape.
- c. **HOW:** Design Taskforce to design the plan that includes at least five different tree species based on their investigation which concludes which trees provide the most benefits and represent the ability to adapt to the climate of the local area.
- d. **WHO:** Resource Taskforce to identify resources to help with steps in the plan.
- e. **WHEN:** Ways and Means Taskforce to create a how-to plan to carry out, develop checkpoints and evaluate the implementation of the Campus Care and Greening Plan overall plan.



Campus Care and Greening Plan

Instructional Procedures continued

7. Ask each committee to incorporate resources they found to assist with their part of the plan.
8. Present the Campus Care and Greening Plan to other classes, parents, school administrators, community leaders. Recognize all who assisted with the project.
9. Post the Plan on a school WIKI page as well as in the school and create a Class Blog where every student reflects on their learning experience and what they have Learned.

Resources

U.S. Forest Service Urban and Community Forestry Program

<http://www.fs.fed.us/managing-land/urban-forests/ucf>

Texas A&M Forest Service, Urban and Community Forestry

<http://txforestsservice.tamu.edu/abouturbanandcommunityforestry>

National Arbor Day Foundation

<https://www.arborday.org/programs/>

Keep America Beautiful Student and Leader Learning Guides, Community Service Learning

<https://www.kab.org/our-programs/education/student-and-leader-learning-guides>

