



TREE TRAILS

1-1

★ SECONDARY ★

★ MAP A TREE TRAIL ★

By understanding maps, students get a sense of where they are in relation to their home, school and neighborhood. Trees are often other important landmarks along the way.

Goal and Objectives

Goal: Students will select a minimum of three trees for the Tree Trail.

Objectives: Students will

1. Select, order and plot a variety of trees for a class Tree Trail and publish on the Tree Trails application.
2. Explain how trees are important landmarks for their school, neighborhood and community environment.

Materials

General

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

Handouts

- Tree Trails Data Sheet

Time and Internet Links

Instructional Time: 2-3 sessions, 45 minutes each

- Instructional Strategies
<http://schools.spsd.sk.ca/curriculum/instructionalstrategies>
- Tree Trails
www.treetrails.org
- Texas Forest Information Portal
<http://texasforestinfo.tamu.edu/>
- Quick Start Guide for map application
<http://texasforestinfo.tamu.edu/treetrails/pdf/TreeTrailHelp.pdf>
- Individual and Community Group Guide for creating a trail
<http://tfsweb.tamu.edu/TreeTrails/Guide/>
- Map My Property
<http://tfsfrd.tamu.edu/MapMyProperty>
- Sample Tree Trail
www.treetrails.org
Search By, Trail Name, enter: Heights HCBTR Trail
- Keep America Beautiful Student and Leader Learning Guides
The Social Blast lesson
<https://www.kab.org/our-programs/education/student-and-leader-learning-guides>



Instructional Procedures

I. Engage/Excite

1. Lead a discussion about the development of maps. Ask what it was like to discover the Americas, Arctic, and Antarctic; i.e., ask if the early explorers have a plan to find new land? Did they have a map? Did they create a map? What was important to put on a map? When we create our map of trees, what will be important to put on it (size, identification, location, etc.)?
2. Extend the discussion about how maps relate to the landscape, school and community environment. Ask why a map of trees leads to greater understanding of our relationship to our school, community, its resources and landmarks/landscapes. Ask student to list answers in their Tree Trail Portfolio and/or create a class list. Have them include what they want to *Know* about mapping a tree trail.

II. Explore

1. Prompt a discussion about how technology is an important tool to make maps and record information about them. Show students a website where trees have been mapped and recorded by projecting the Tree Trails web application. Let them know this is the website where their class Tree Trail will be published. Show Tree Trails that have been mapped around the United States by clicking on the US map at the upper left side of the website.
2. Move students into small groups of two or three. Provide each group with a computer. Allow students to explore the Texas A&M Forest Service Information Portal and the different applications on this website, such as Forest Ecosystem Values, Forest Distribution, Map My Property and Tree Trails. Invite them to further investigate the Tree Trails application and its different tabs and sections. Encourage them to look at other group's trail and individual tree data.
3. Conduct a discussion about what they found and enjoyed.

III. Explain

1. Lead a discussion about the process of developing their trail map. List these steps on a chart or whiteboard: a. Decide on the location of the class Tree Trail, on campus or another landscape, such as a park; b. Name their class Tree Trail; c. Select trees for their trail; d. Order the trees on the trail; e. Map/plot the trees' trail on the website.
2. Tell students that each group will locate their tree(s) by recording longitude and latitude using a GPS unit or location app for phone or tablet that will be entered on the Tree Trails web application.



III. Explain continued

Provide each student with a Tree Trails Data Sheet. They will finish the data sheet as they develop their class Tree Trail.

Teacher Tip: An alternative method is to print a satellite view map to visually locate the trees. Use the Map My Property web application to find the address and print a copy for each group.

3. Lead student groups outside to select one or two trees each. Ask each group to record the location coordinates of their trees or if using a map, mark the locations. While outside, have the students work together to determine the order of the trees on the trail and assign each group the determined number. This order will be used to publish the class Tree Trail online.

IV. Extend/Elaborate

1. Lead a discussion about how Tree Trails are created and published on the Tree Trails web application. Review the order of the trees. Have a volunteer student mark the trees online as the groups give verbal directions to their tree on the map. They will complete the individual tree data in their small groups.

Teacher Tip: Use the Quick Start Guide or the Individual and Community Group Guide for specific directions on publishing the class Tree Trail map. The digital trees can be moved or others added after the trail is added. Use the Quick Start Guide's Edit a trail section for information on how to do that.

2. Lead a discussion about their Tree Trail as part of the landscape. Ask how their trees form a reference point and help us relate to our landscape.

V. Evaluate

1. Move students into small groups and ask them to reflect over their learning experience and generate a list, on chart paper, of steps used in the development of their Tree Trail.
2. Ask each group to post their charts and share. Have students to analyze each group's synopsis. Conduct a "Challenge" debate session. Any group may challenge another about steps left out or in need further explanation. Close by asking students what they *Learned*. List responses.

VI. Extra Mileage/Attention

Extra Mileage: Regroup students using the expert model; i.e. allow student leader(s) to extend the discussion regarding how Tree Trail projects across the state could help increase awareness of



VI. Extra Mileage/Attention continued

values trees contribute to the landscape. They may create and post their ideas on a class Tree Trail blog and use Keep America Beautiful Leader Learning Guide's "The Social Blast" framework to plan a social media campaign to raise awareness about their Tree Trail as they learn more about their trees.

Extra Attention: Students work in pairs to retell the process of developing their class Tree Trail. Discuss what was easy and what was more difficult. Regroup students according to the different things they found difficult. Students enter their solutions for making the task easier and post solutions in their Portfolios.

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



Tree Trails Data Sheet

Name _____

Group _____

School / Organization _____

Trail Name _____

Trail Type School Nature Center Park Other

Hours Involved _____



Tree Order #	Latitude (decimal degrees)	Longitude (decimal degrees)	Tree Species	Circumference (inches)	Diameter (inches)	Height (feet)
Crown Spread (feet)	Condition Rating (Good Fair Poor)	Comments				

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Learning Log

Use this Learning Log to write about your reflections, concerns, questions, responses, and just to add notes about your module experience. Each time you sign into your Learning Log, record the date and the Module number you are responding. If you have more than one entry for the same module, sign in again with a different time.

