

1. Title / Content Area:	If you can't Rock the Cradle of the Forest Service, Rock your School!
2. Developed by:	Beth Howard
3. Grade Level:	Upper Elementary to Middle School
4. Essential Question:	Who were the people who were essential in the establishment of the National Forest Service? How can we "rock the cradle" and learn about trees and forest management on our school campus?
5. Contextual Paragraph	<p>On March 1, 1911, Massachusetts Congressman John W. Weeks introduced a law, which was later signed by President William Howard Taft, known as the Weeks Act. This law allowed the Secretary of Agriculture to "Examine, locate and recommend for purchase lands within watersheds of navigable streams as may be necessary to the regulation of flow of navigable streams..." \$9 million dollars was allocated to buy acreage in the Eastern United States. These private lands, purchased through the Weeks Act, then became National Forest reserves.</p> <p>One of the first national forests in the Eastern United States was established in 1916. This 86,700 acre preserve is known now as the Pisgah National Forest although prior to this time it was a part of the Biltmore Estate in Asheville, North Carolina. This plot of the estate was sold to the government in 1914 by Edith Vanderbilt, through the Weeks Act.</p> <p>Forestry in the United States really began in the Pisgah National Forest. George Washington Vanderbilt II, builder of the Biltmore Estate, established the Biltmore Forest School on the property. This school is known as the Cradle of Forestry and was in operation in the late 1800's and early 1900's. The US Forest Service was</p>



	<p>created thanks to the major role of the Cradle of Forestry (school) and the Biltmore Estate. Today, there is an educational area on the site of the original school to keep the history of Forestry alive!</p>	
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# Annotated Resource Set (ARS)



Phase I

6. Resource Set					
Weeks Picture	Weeks at Desk	Weeks is a dandy	Pisgah Park Sunset	Edith Vanderbilt engagement picture	(Resource Title Here)

(Context)	(Context)	(Context)	(Context)	(Context)	(Context)
					
<p><a href="https://www.loc.gov/item/hec2013001087/">https://www.loc.gov/item/hec2013001087/</a></p>	<p><a href="https://www.loc.gov/item/hec2008007532/">https://www.loc.gov/item/hec2008007532/</a></p>	<p><a href="https://www.loc.gov/item/hec2008005493/">https://www.loc.gov/item/hec2008005493/</a></p>	<p><a href="https://res.cloudinary.com/simpler-view/image/upload/c_limit,f_auto,h_1200,q_75,w_1200/v1/clients/asheville/jaredkay-looking-glass-wildflowers_331c8003-87c9-46d3-9272-dbea5d015168.jpg">https://res.cloudinary.com/simpler-view/image/upload/c_limit,f_auto,h_1200,q_75,w_1200/v1/clients/asheville/jaredkay-looking-glass-wildflowers_331c8003-87c9-46d3-9272-dbea5d015168.jpg</a></p>	<p><a href="https://i.pinimg.com/236x/d8/47/d7/d847d7f62bd10fa53031e99df1d5967c.jpg">https://i.pinimg.com/236x/d8/47/d7/d847d7f62bd10fa53031e99df1d5967c.jpg</a></p>	<p>( )</p>

Edith and daughter	Portrait of GW Vanderbilt II	Biltmore 1895	Pisgah Forestry School	(Resource Title Here)	(Resource Title Here)
		<p>(</p>  <p>Context)</p>	<p>(Cont</p> 		
<a href="https://upload.wikimedia.org/wikipedia/commons/thumb/6/61/Edith_Vanderbilt_with_daughter.jpg/220px-Edith_Vanderbilt_with_daughter.jpg">https://upload.wikimedia.org/wikipedia/commons/thumb/6/61/Edith_Vanderbilt_with_daughter.jpg/220px-Edith_Vanderbilt_with_daughter.jpg</a>	<a href="https://www.thefamouspeople.com/profiles/images/george-washington-vanderbilt-ii-1.jpg">https://www.thefamouspeople.com/profiles/images/george-washington-vanderbilt-ii-1.jpg</a>	<a href="https://images-na.ssl-images-amazon.com/images/I/51zAKIM-cxL.jpg">https://images-na.ssl-images-amazon.com/images/I/51zAKIM-cxL.jpg</a>	<a href="https://upload.wikimedia.org/wikipedia/commons/4/45/Biltmore_Forestry_School%2C_Schoolhouse%2C_Brevard_vicinity_%28Transylvania_County%2C_North_Carolina%29.jpg">https://upload.wikimedia.org/wikipedia/commons/4/45/Biltmore_Forestry_School%2C_Schoolhouse%2C_Brevard_vicinity_%28Transylvania_County%2C_North_Carolina%29.jpg</a>	(Resource Link Here)	

(Resource Link Here)					
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(Resource Title Here)	(Resource Title Here)	(Resource Title Here)	(Resource Title Here)	(Resource Title Here)	(Resource Title Here)
(Context)	(Context)	(Context)	(Context)	(Context)	(Context)
					
(Resource Link Here)	(Resource Link Here)	(Resource Link Here)	(Resource Link Here)	(Resource Link Here)	(Resource Link Here)

Notes/Comments: S is for S'mores, A Camping Alphabet written by Helen Foster James and Illustrated by Lita Judge (Sleeping Bear Press)



**Foundations Annotations**



**7. Curriculum Connections**



Social Studies

Visual Arts

Science

Language Arts



**8. Curriculum Standards**



1. Common Core ELA Science and Technical Subjects (6-8) • CCSS.ELA-LITERACY.RST.6-8.4 Determine the meaning of symbols, key terms, and other domain specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.
2. • CCSS.ELA-LITERACY.RST.6-8.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.



**9. Content & Thinking Objectives**



Students will understand that the Forest Service was established following the passing of the Weeks Act and the Forest Service is responsible for the planning and management of Public Lands in the United States. Students will create a map of a selected area of the campus and categorize different trees, plants and physical properties using symbols and color coding.



## 10. Inquiry Activities & Strategies



The Forest Service is responsible for the planning and management of many public lands in the United States. One way that they determine decisions about forest management is through the use of forest mapping. A visual representation, map, shows the Forestry Service features such as; physical properties, different habitats and proximity of trees within the area. A map provides a visual representation of the forest and aids in the planning for its care and use by the public.

Prior to the lesson choose an appropriate outdoor site on your campus and clearly mark off gridded plots with survey flags or tape. A local surveyor may be a great resource for needed materials.

Look at the species of trees within the area and make a large poster of the tree types and the color that they should use to identify the trees in their plot.

Set your expectations, establish rules and safety constraints prior to leaving the classroom.

Divide students groups and assign each group a plot.

Provide each group a clipboard, large grid graph paper, pencil and crayons or colored pencils to color-code species of trees. Students will also need to identify the species of some trees. They should use a tree identification book or website from your state's Forestry Service or local Arboretum.

Tell students that they will be creating a map for their marked plot. Mention scale and proportion then explain that when they create their maps, they should be as accurate as possible. Start with the larger trees, which should be drawn as the larger trees and work their way down to the smaller trees, vegetation and physical features.

Explain that their plot map will be joined with the adjacent plot maps to create a comprehensive forest map of the area. This is similar to what the Forest Service uses to help them spatially locate features within a forest and assist in planning.

Point out which direction is north and explain that students should orient their maps to north. If you have access to handheld GPS at your school, this would be a great opportunity to show students a practical application for its use.

Following the activity, have the students assemble the forest map and debrief the lesson.

1. What is the most abundant tree type? Why do you think this is?
2. Which plot has the oldest tree?
3. What type of animals might live or feed in this area? How do you know this?
4. Share the most unique feature of your plot.



#### 11. Assessment Strategies



Upon completion of this lesson, students will be able to:

Spatially represent a forest and its features on a map and understand how mapping is used by the Forest Service

Understand the importance of the Weeks Act and the effect the Cradle of Forestry has had on the US Forest Service.

#### Other Resources

## 12. Web Resources

<https://www.bing.com/videos/search?q=youtube+children%27s+books+about+trees&qvvt=youtube+children%27s+books+about+trees&view=detail&mid=ADA6EAA80CBC8881AE4BADA6EAA80CBC8881AE4B&&FORM=VDRVRV> – Shel Silverstein reads **The giving tree**



## 13. Secondary Sources



## 14. Print and Other Media Resources



<https://www.loc.gov/item/hec2013001087/> Weeks Picture

<https://www.loc.gov/item/hec2008007532/> Weeks at Desk

<https://www.loc.gov/item/hec2008005493/> Weeks is a dandy

[https://res.cloudinary.com/simpleview/image/upload/c\\_limit,f\\_auto,h\\_1200,q\\_75,w\\_1200/v1/clients/asheville/jaredkay-looking-glass-wildflowers\\_331c8003-87c9-46d3-9272-dbea5d015168.jpg](https://res.cloudinary.com/simpleview/image/upload/c_limit,f_auto,h_1200,q_75,w_1200/v1/clients/asheville/jaredkay-looking-glass-wildflowers_331c8003-87c9-46d3-9272-dbea5d015168.jpg) Pisgah Park Sunset

<https://i.pinimg.com/236x/d8/47/d7/d847d7f62bd10fa53031e99df1d5967c.jpg> Edith Vanderbilt engagement picture

[https://upload.wikimedia.org/wikipedia/commons/thumb/6/61/Edith\\_Vanderbilt\\_with\\_daughter.jpg/220px-Edith\\_Vanderbilt\\_with\\_daughter.jpg](https://upload.wikimedia.org/wikipedia/commons/thumb/6/61/Edith_Vanderbilt_with_daughter.jpg/220px-Edith_Vanderbilt_with_daughter.jpg) Edith and daughter

<http://www.biltmore.com/blog/article/edith-vanderbilt> blog about Edith

<https://www.thefamouspeople.com/profiles/images/george-washington-vanderbilt-ii-1.jpg> Portrait of GW Vanderbilt II

<https://images-na.ssl-images-amazon.com/images/I/51zAKIM-cxL.jpg> Biltmore 1895

<https://www.loc.gov?resources/hhh.nc0520.photos/?sp=3> Pisgah Forestry School

<https://www.fs.fed.us/land/staff/weeks-act.html> weeks act **Weeks Act Centennial 2011**

[www.google.com/search?q=forest+ranger+and+children&rlz=1C1GGRV\\_enUS751&source=Inms&tbn=isch&sa=X&ved=0ahUKewjMmceK7OjUAhVI6oMKHQdFBW0Q\\_AUICigB&biw=1366&bih=662#imgrc=WiLOpB3nY9HrsM](http://www.google.com/search?q=forest+ranger+and+children&rlz=1C1GGRV_enUS751&source=Inms&tbn=isch&sa=X&ved=0ahUKewjMmceK7OjUAhVI6oMKHQdFBW0Q_AUICigB&biw=1366&bih=662#imgrc=WiLOpB3nY9HrsM): picture of ranger's family in wagon  
<http://2.bp.blogspot.com/-1cLU1jfVgcs/TIEqn7RIj3I/AAAAAAAAAo4/DiqGnrXtO3g/s1600/1-28-246+ns175fr7+mom+horse+buggy+-+kids+saint+coll.jpg>

Rangers over the years

<https://www.loc.gov/item/npc2008009966/> forest ranger pic

<https://www.loc.gov/item/2002706427/> ranger on horseback

<https://www.loc.gov/item/owi2001016666/PP/> ranger reading to 2 kids

<https://www.loc.gov/item/hec2013015665/> ranger poster

<https://www.nps.gov/glac/learn/kidsyouth/images/rangerhikekids.jpg> modern female ranger and kids

<https://www.nps.gov/redw/planyourvisit/images/ranger-and-kids-350x411.jpg> female and 2 kids

## ARS Component Guide

### Phase I Components

- 1. Title / Content Area:** Provide the title of the ARS. If the title doesn't explicitly denote the sets theme, please also provide a content area (e.g. Environment, Government, Immigration, War/Military, Women's History, etc.).
- 2. Developed by:** Provide your name and any other contributors to the ARS.
- 3. Grade Level:** Provide the grade level(s) for which the set is to be taught.
- 4. Essential Question:** Provide an essential question that encompasses the set theme and that could be used as a launching point for use in the classroom.
- 5. Contextual Paragraph for Resource Set:** Provide a short paragraph explaining the resource set and describing the context in which the set is to be used
- 6. Resource Set:** Provide titles, context, thumbnails and addresses for specific resources. It isn't necessary to provide a thumbnail for all resources (e.g. audio and video files).  
**Important:** Be sure to use a permanent URL and check your hyperlinks for all resources.

### Phase II Components

- 7. Curriculum Standards:** Provide local, state or national standards that could be addressed through the use of the ARS and subsequent activities
- 8. Curriculum Connections:** Provide other curriculum areas to which this set of resources could be applied
- 9. Content & Thinking Objectives:** Provide objectives to be met through the use of the ARS and subsequent activities
- 10. Inquiry Activities & Strategies:** Provide specific strategies and learning activities which the ARS will be used to support

**11. Assessment Strategies:** Provide assessment methods which will be used to demonstrate student learning after the use of the ARS and subsequent activities

### **Other Resources**

**12. Secondary Sources:** Provide any secondary sources that could be used to supplement the ARS

**13. Web Resources:** Provide links to any additional web resources that could be used to supplement the ARS

**14. Print and Other Media Resources:** Provide other resources that could be used to supplement the ARS