



## Virginia View Curriculum

**Lesson Plan**

Virginia's Forests

**Grade Level**

Elementary, Grade 4

**Applicable Virginia SOL**

Science 4.8d, VS1i, VS2b

**Summary**

Students will learn about forests, forest management, and forest cover in Virginia.

**Classroom Materials**

Printed handouts and maps. Two small parts of the exercise require internet access. Teachers can gather this information ahead of time or assign it as homework.

**Submitted by**

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## Teacher Guide

### Applicable Virginia SOL:

- Science 4.8 The student will investigate and understand important Virginia natural resources. Key concepts include
- d) forests, soil, and land.
- VS.1 The student will demonstrate skills for historical and geographical analysis and responsible citizenship, including the ability to
- i.) analyze and interpret maps to explain relationships among landforms, water features, climatic characteristics, and historical events.
- VS.2 The student will demonstrate knowledge of the physical geography and native peoples, past and present, of Virginia by
- b) locating and describing Virginia's Coastal Plain (Tidewater), Piedmont, Blue Ridge Mountains, Valley and Ridge, and Appalachian Plateau;

### Working definitions:

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### Teacher Preparation:

Questions number 2 and 7 require internet access. If you do not have internet access in the classroom, you can either assign these questions as homework or access the information ahead of time to share with the class.

Print out or access:

- The map "Forest Cover of Virginia 2000" (at least one per group of students) from the [Digital Atlas of Virginia](#), which can be accessed as:
  - A map attached at the end of this document
  - PDF (4.24 MB) à [http://gep.frec.vt.edu/Digital\\_Atlas\\_PDFs/Forest\\_Cover.pdf](http://gep.frec.vt.edu/Digital_Atlas_PDFs/Forest_Cover.pdf)
  - Interactive Web Mapper - [http://arc.gis.vt.edu/Forest\\_Cover/](http://arc.gis.vt.edu/Forest_Cover/) (note: May be slow to load, please be patient)
  - Data service to be used in ArcGIS (Add GIS Server <http://arc.gis.vt.edu/arcgis/services> , select the "VAView" folder, add the Forest\_Cover data service).
  - Data service to be used in ArcGIS Explorer or ArcGIS Explorer online [http://arc.gis.vt.edu/ArcGIS/rest/services/VAView/Forest\\_Cover/MapServer](http://arc.gis.vt.edu/ArcGIS/rest/services/VAView/Forest_Cover/MapServer)
- The attached maps, "National Forests in Virginia by Geographic Provinces" and "State Forests and Forestry Centers in Virginia", at least one per group of students
- For each student, a student worksheet

# Student Worksheet: Virginia's Forests

Name: \_\_\_\_\_

## **Benefits of Trees and Forests**

1. What are three reasons why trees are important? \_\_\_\_\_  
\_\_\_\_\_
2. Go to Project Learning Tree, Tree Basics on the internet  
<http://dendro.cnre.vt.edu/forsite/treebasics.htm> use the first two pages of "Tree Basics"  
(especially page 2) to find four ways that trees are beneficial.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **Forest cover in Virginia and your county**

Use the map "Forest Cover in Virginia 2000" to answer the following questions.

3. Estimate what percentage of Virginia is covered by trees. \_\_\_\_\_
4. Do you think that the percentage has gone up or down since 2000? \_\_\_\_\_
5. Why do you think that?
6. Find your county (city). Is there more forest or non-forest in your county (city)? \_\_\_\_\_

Go to the following website: <http://cnre.vt.edu/forsite/forestcommunity/countymap/>

7. Click on Show Legend and enlarge to 200 (the two buttons on the left-hand side). For your county, find: Area of Forest (%) \_\_\_\_\_ and number of trees \_\_\_\_\_  
what percent of the forest land is Public? \_\_\_\_\_

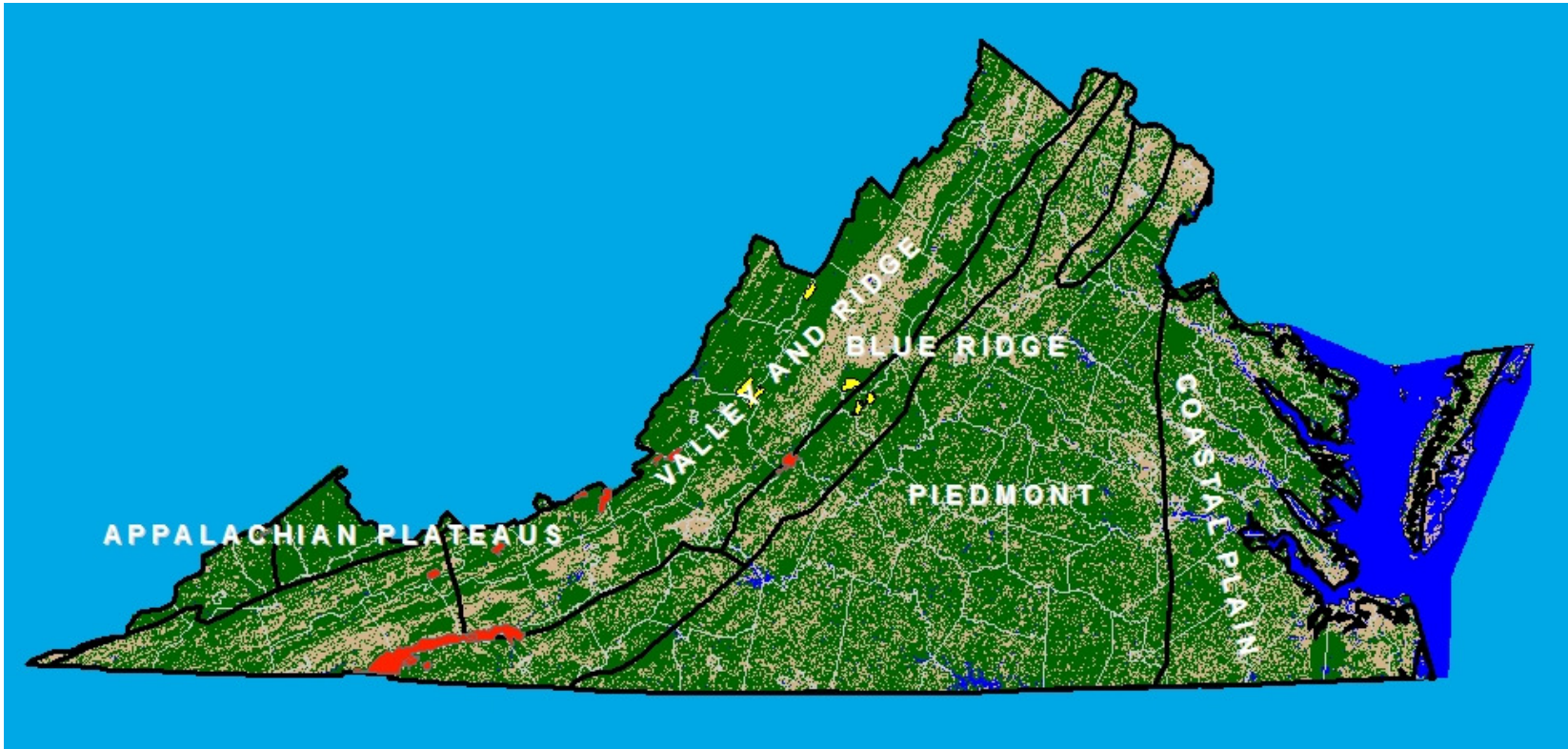
**Public Forests**- Many Forests in Virginia are managed by either the State or Federal Government.

## **National Forests and Geographical Provinces map**

8. According to the map legend, what is the color for the Jefferson National Forest? \_\_\_\_\_
9. According to the map legend, what is the color for the George Washington National Forest?  
\_\_\_\_\_
10. In what part of the state are these two forests located?(N, W, E, S, NE, NW, SE, SW)
11. In what geographical provinces are these forests located? \_\_\_\_\_

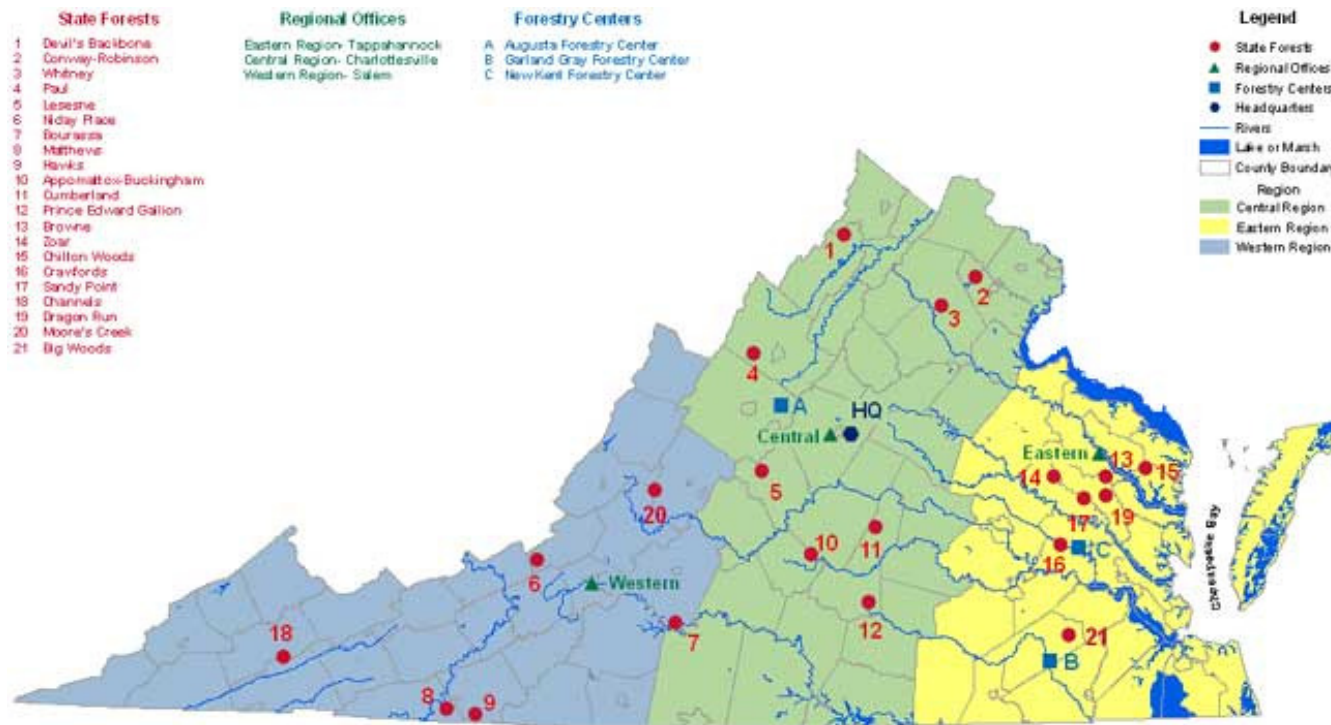
## **State Forest Map**

12. Which state forest(s) is(are) in your county? \_\_\_\_\_  
If there are none, which state forest is closest? \_\_\_\_\_



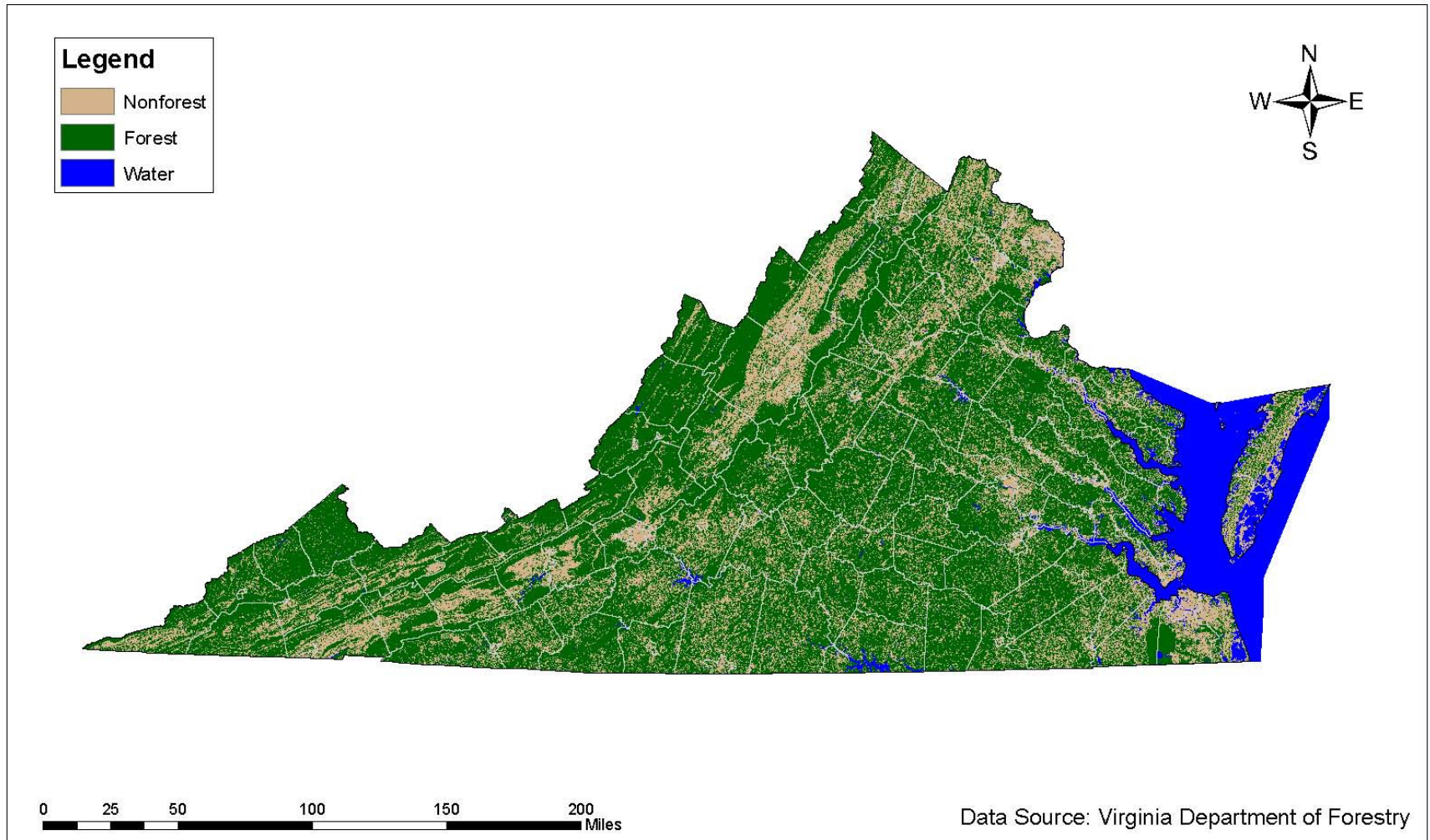
- George Washington National Forest
- Jefferson National Forest

National Forests in Virginia by Geographic Province



State Forests and Forestry Centers in Virginia

# Forest Cover of Virginia in 2000



Related SOLs: Science 4.8d.

## Resources

Digital Atlas of Virginia: [http://virginiaview.cnre.vt.edu/digital\\_atlas.html](http://virginiaview.cnre.vt.edu/digital_atlas.html)

A map-based resource designed for Virginia teachers. The Digital Atlas contains many different maps pertinent to Virginia in several accessible formats.

<http://www.dof.virginia.gov/index.shtml>

<http://www.dof.virginia.gov/stforest/state-forest-map.htm>

Virginia Department of Forestry, State forest map for Virginia. Interactive map.

<http://www.web2.cnre.vt.edu/4h/treecalculator/ecoservices.cfm>

Tree value calculator for Urban Trees\*.

<http://cnre.vt.edu/plt/>

Project learning tree – wide variety of learning activities and modules organized by grade level and Virginia SOL.

<http://pubs.ext.vt.edu/420/420-181/420-181.html>

Cost, value, benefits of Urban Trees\*

<http://www.fs.fed.us/>

United States Forest Service

<http://cnre.vt.edu/forsite/forestcommunity/countymap/>

Interactive map of forest cover for the Mid-Atlantic States, organized by county. A nice tool for gathering data.

\*It is important to note that Urban Trees and Forests do not typically serve the same ecological or environmental purposes. The exercise and map focus on Forests, not Urban Trees (trees viewed individually). However, the information on these sites can be helpful in planning a lesson.