VIRGINIA

Giant Traveling Map Lesson

TITLE / AUTHORS: Virginians on the Move / Edward Kinman

VIRGINIA ACADEMIC STANDARDS / SUITABLE DISCIPLINES:

Civics and Economics Skills

CE.1 The student will demonstrate skills for historical thinking, geographical analysis, economic decision making, and responsible citizenship by
a) analyzing and interpreting evidence from primary and secondary sources, including charts, graphs, and political cartoons;
b) analyzing how political and economic trends influence public policy, using demographic information and other data sources;
c) analyzing information to create diagrams, tables, charts, graphs, and spreadsheets;
d) determining the accuracy and validity of information by separating fact and opinion and recognizing bias;
e) constructing informed, evidence-based arguments from multiple sources;
f) determining multiple cause-and-effect relationships that impact political and economic events;
g) taking informed action to address school, community, local, state, national, and global issues;
i) applying civic virtue and democratic principles to make collaborative decisions; and
j) defending conclusions orally and in writing to a wide range of audiences, using evidence from sources.

CE.2 The student will apply social science skills to understand the foundations of American constitutional government by explaining the fundamental principles of consent of the governed, limited government, rule of law, democracy, and representative government;

CE.7 The student will apply social science skills to understand the American constitutional government at the state level by
a) describing the structure and powers of the state government;
b) explaining the relationship of state governments to the national government in the federal system;

Virginia and United States Government Skills

GOVT.1 The student will demonstrate skills for historical thinking, geographical analysis, economic decision making, and responsible citizenship by
a) planning inquiries by synthesizing information from diverse primary and secondary sources;
b) analyzing how political and economic trends influence public policy, using demographic information and other data sources;
c) comparing and contrasting historical, cultural, economic, and political perspectives;
d) evaluating critically the quality, accuracy, and validity of information to determine misconceptions, fact and opinion, and bias;
e) constructing informed, analytic arguments, using evidence from multiple sources to introduce and support substantive and significant claims;
f) explaining how cause-and-effect relationships impact political and economic events;
g) taking knowledgeable, constructive action, individually and collaboratively, to address school, community, local, state, national, and global issues;

h) using a decision-making model to analyze the costs and benefits of a specific choice, considering incentives and possible consequences;
i) applying civic virtues and democratic principles to make collaborative decisions; and
j) communicating conclusions orally and in writing to a wide range of audiences, using evidence from multiple sources and citing specific sources.

GOVT.3 The student will apply social science skills to understand the concepts of democracy by
a) recognizing the fundamental worth and dignity of the individual;
b) recognizing the equality of all citizens under the law;
c) recognizing what defines a citizen and how noncitizens can become citizens;
d) recognizing majority rule and minority rights;
e) recognizing the necessity of compromise; and
f) recognizing the freedom of the individual.

Virginia Studies

VS.1 The student will demonstrate skills for historical thinking, geographical analysis, economic decision making, and responsible citizenship by
a) analyzing and interpreting artifacts and primary and secondary sources to understand events in Virginia history;
b) analyzing the impact of geographic features on people, places, and events to support an understanding of events in Virginia history;
c) interpreting charts, graphs, and pictures to determine characteristics of people, places, or events in Virginia history;
d) recognizing points of view and historical perspectives;
e) comparing and contrasting ideas and cultural perspectives in Virginia history;
f) determining relationships with multiple causes or effects in Virginia history;
g) explaining connections across time and place;
h) using a decision-making model to identify costs and benefits of a specific choice made;
i) practicing good citizenship skills and respect for rules and laws while collaborating, compromising, and participating in classroom activities; and
j) investigating and researching to develop products orally and in writing.

OBJECTIVES:

Students will:
- Learn about Virginia major population centers during three different historical periods
- Practice using grids and cardinal directions to locate places in the state
- Practice using latitude and longitude lines (if appropriate for grade level)
- Analyze change over time
- Discuss topics such as the census (source of data), distribution of resources in the state, and implications of changes in population for political representation at various levels of government

RECOMMENDED GRADES: Fourth through adult

TIME NEEDED: 20 to 25 minutes, depending on whether discussion is held as part of the mapping activity or at a later time

MATERIALS:
- Compass rose
- 15 flat markers
- 15 tall plastic cones
- 15 shorter, flexible plastic cones or cups
- 4 plastic chains for dividing state

- List of the 15 largest Virginia population centers for 1810/1910/2010 census years (some population centers are not on the map and will need to be found by using latitude and longitude lines at the sides of the map). Population centers are counties or independent cities, although in certain cases independent cities have been merged with the county from which is was originally created. See the Population Notes section on page 5 for a discussion on the challenges of making population temporal comparisons in Virginia.
- Geographic Regions of Virginia Map that includes current county and independent city boundaries
  NOTE: If you are conducting this lesson using a paper driving map and LEGOs, use three different colors of LEGOs rather than three different types of cones.

PREPARATION:
- Discussion about the reasons why people choose to live in different places
- Review of historical settlement patterns in Virginia, including the colonial period
- Development of predictions by students about where they think people might live

RULES:
- Shoes are not allowed on the map. Please have students remove shoes before walking on the map.
- No writing utensils on the map
- No sliding on the map.

DIRECTIONS:
Using the list of population centers and colored cones, students will locate the fifteen most populous sites in Virginia for the census years 1810, 1910, and 2010. They will then look for trends based on the regions of Virginias, speculating about the factors that contributed to populations shifting west of the Fall Line following the early colonial period (1607-1700).

I. ON THE MAP:
   A. Using a chain or rope, have students identify the Fall Line on the map with. If the students struggle, tell them there are a number of Fall Line cities (from south to north—Emporia, Petersburg, Richmond, Fredericksburg, and Arlington). Tell students that during this early period the majority of Virginia's population resided in the Coastal Plain region east of the Fall Line. Explain how the broad rivers were able to handle boats that provided easy connections throughout the tidewater area as well as with England prior to 1700. On the other hand, the natural occurring rapids at the Fall Line prevented ships from going further upstream. Thus, the population during the early colonial period was concentrated in the Tidewater.

   B. Provide students with an overview about exploring the top fifteen populated places in Virginia in 1810, 1910, and 2010 using U.S. Census data as a source of information. Discuss how a census compares to a survey, and how there can be counts of items beyond people.

   > **Question 1) Ask students about the kinds of jobs they imagine people were doing in Virginia in 1810. Ask them to predict where people might be living. Why?**
   >
   > *Answers will probably vary, but the economy at this point continued to be driven by agriculture. Tobacco was still a very lucrative cash crop, but wheat and corn were also grown. Some infrastructure projects, such as the James River and Kanawha Canal, began after the Revolutionary War and continued to 1851.*

At this point, it is important to get students to think about issues related to tobacco production.

Anytime throughout this activity, record questions to which students do not have an answer, and identify any issues that arise from students' discussions about patterns on the map that might warrant further investigation. Write one question per card and place it on the map. Distribute these cards to students in the second phase of the activity.

C. Take 15 round makers. Pass them out to 15 students (usually just ask them to take one and pass the remainder along).

D. Read the 15 largest population centers one at a time, going down the row of students and asking the students to place the marker on the dot identifying the town if on the map (star in the case of Richmond). Since several of the population centers are counties not found on the map, locate the site using the latitude and longitude coordinates provided.

E. Remind the students that they can provide assistance to their classmates about the location of a county or city based on cardinal directions (north, south, east, west) or the grid. They should avoid shouting "over there" or "this way" and use specific geographic directions.

F. Using the Geographic Regions of Virginia Map, have four teams of two students place four chains on the map to divide the state into the five physiographic regions.

G. After the flat, round markers are all on the map, ask the students to interpret the new information that has been added to the map.

Question 2) In 1810, how many of the fifteen largest population centers were located east of the Fall Line in the Tide Water region of Virginia, keeping in mind that this region included the bulk of the colonial population prior to 1700? What do you think explains this pattern?

Only four population centers (Richmond/Hanover, Norfolk/Norfolk County, Caroline, and Accomack) were in the Tidewater or along the Fall Line in 1810. As tobacco exhausted the nitrogen and other nutrients from the soil in the Tidewater, new tobacco farms and plantation were carved in the Piedmont. Former Tidewater lands converted to wheat and corn, which weren't as nutrient-demanding as tobacco, nor did these crops require as much intensive labor.

Question 3) Describe population patterns west of the Fall Line in 1810.

In the Piedmont region there are three clusters. One consists of counties along the North Carolina border (Pittsylvania, Halifax, Mecklenburg, and Brunswick). There is a northern Virginia cluster (Loudoun, Fauquier, and Culpeper). Lastly, there is a central piedmont cluster (Albemarle and Buckingham). Note the absence of population centers in the Appalachian Plateau, Valley and Ridge, and Blue Ridge Mountains.

Question 4) Why do you think this pattern existed in 1810? What role do the five geographic regions play in the pattern?

Good conditions for tobacco cultivation and good connections. Tobacco remains very lucrative crop, but new land was needed that hadn't been degraded by prior

tobacco production. There were areas where it was difficult to cultivate tobacco (steep slopes of Blue Ridge Mountains) or transport the crop easily to markets (Appalachian Plateau, Valley and Ridge) with existing technology in 1810.

Question 5) How does Virginia's total population compare with the rest of the United States in 1810?

In 1810, the total population of Virginia was 976,435, the largest of any state at the time (this included West Virginia as West Virginia was part of Virginia until 1863). That was a 10.9% increase over the population in 1800. During the same decade, the population of the United States increased by 26.7% to 7,239,881.

H. Based on the population distribution, give a rope or plastic chain to two students and ask them to divide Virginia into two districts with an equal number of population centers in each. Continue and have another pair of students do the same process but partition the state differently.

Question 6) Speculate what issues might arise in the different ways the districts were created?
Answers can vary. If help is needed to generate discussion, point out challenges that might be present with transportation or economic interests of people inhabiting the districts.

I. Move on to the 1910 Census, pass out the 15 larger cones. Assign individuals students to place their cones on the 15 most populated places. If a location is in the top 15 for both 1810 and 1910, have students pick up the flat marker and place it on top of the larger cone.

Question 7) What jobs were people doing in 1910? In which regions do you predict will people might be living?

Answers can vary. If students do not know what major types of employment were important in 1910, write this question on a card for further research by the class. Be sure to include technological changes in transportation (emergence of trains, automobiles) as well as other industrial developments.

Question 8) Describe population patterns in 1910. How many population centers are in each geographic region?

Large population centers are more dispersed across the state compared to 1810. While the Piedmont has the most large cities, five sites are west of the Piedmont (Roanoke in Blue Ridge, Augusta/Staunton, Washington/Bristol, Rockingham/ Harrisonburg in the Valley and Ridge; and Wise/Norton in the Appalachian Plateau). In addition, the two urban centers from 1810 (Richmond and Norfolk) continue to grow.

Question 9) What has changed from 1810 to 1910, and why?

Tobacco production remains strong, especially along the North Carolina border (Pittsylvania/Danville, Halifax/South Boston, Mecklenburg/Clarksville). Transportation is key to understanding growth of Norfolk (maritime) and Roanoke (trains). Improved transportation opened new areas west of the Blue Ridge, including population centers centered on coal mining (Washington County/Bristol, Wise/Norton). Textiles, iron works, tobacco, and consumer goods emerge in urban centers.

Ques**tion 10) How does Virginia's total population compare with the rest of the United States in 1910?**

In 1910, the total population of Virginia was 2,951,512, ranking 20th among the 46 states and the District of Columbia (Virginia ranked first among 17 states, 8 territories, and the District of Columbia in 1810). That was a 202.3% increase over the population in 1810. During the same period, the population of the United States increased by 1,173.9% to 92,228.496. While Virginia's population continues to grow, it is a much slower rate than the entire country. Note that at this time West Virginia is a separate state.

J. Repeat process with 2010 Census data by locating population centers with the smaller plastic cups or cones. Place the cups or cones on top of the flat, round markers, creating a pyramid, or on top of the large cone if the population center was in the top 15 only in 1910.

Question 11) What jobs were people doing in 2010? In which regions do you predict will people might be living?

Answers can vary. If students do not know what types of jobs are important in 2010, write this question on a card for further research by the class. Both agriculture, mining, and manufacturing are in decline, while government, professional, business services, and transportation are ascendant.

Question 12) Describe population patterns in 2010. How many population centers are in each geographic region?

There are three clusters of population centers, northern Virginia (Fairfax, Prince William, Loudon, Arlington, Spotsylvania, Alexandria), capital region (Richmond, Chesterfield, Henrico), and greater Norfolk/Hampton Roads area (Norfolk, Newport News, Virginia Beach, Chesapeake/Portsmouth). These three regions account for over half Virginia's population in 2010.

Question 13) What has changed from 1810 to 1910 to 2010 and why?

Population centers has become more concentrated in three large urban areas. Growing importance of government jobs is important for all three areas. Further, many business and professional services associated with some government jobs have generated many additional positions in the defense industry. Transportation continues to play important roles in international maritime shipping, railroads, and now air travel (Dulles International and Regan airports).

Question 14) How does Virginia's total population compare with the rest of the United States in 2010?

In 2010, the total population of Virginia was 8,001,024, ranking 12th among the 50 states and the District of Columbia (Virginia ranked 20th among 46 states, and the District of Columbia in 1910). That was a 171.1% increase over the population in 1910. During the same period, the population of the United States increased by 234.8% to 308,745,538. While Virginia's population continued to grow, it grew at a slower rate than the entire country.

POPULATION NOTES:

Understanding population patterns in Virginia presents a challenge. Unlike most states, Virginia had 38 cities in the 2010 Census that were politically and administratively independent of the counties with which they share borders. These were created throughout Virginia's history, with 17 having been formed during the 19th Century and the remainder in the 20th Century. Thus, there is a problem in using consistent enumeration areas for the three census periods covered in this exercise. Populations of independent cities, therefore, have been combined with the county in which they were originally located if they were not present in each census. On the list of largest population centers for each census, most counties have the largest city or town identified to assist in finding their location on the National Geographic Giant Map.

If you want to work with county and independent city data disaggregated, a spreadsheet containing this information for all census from 1790 through 2010 can be found at: https://www.uccs.edu/geocivics/stateresources/virginia

For more information on each Virginia independent city, visit the Encyclopedia Virginia website: https://www.encyclopediavirginia.org/Cities_of_Virginia

II. **MODIFICATIONS:**

For younger students, focus on the map key and compass rose. For older students, invite them to have more autonomy in the lesson and incorporate additional mathematical concepts. Not all questions need to be used, but make an effort to include sufficient questions to observe shifting population patterns. For community members, focus on the region of the state where the activity is taking place.

III. **EXTENSIONS**

A. Retrieve the question cards from the map. Review these and give them to students for further research.

B. Develop additional questions for students for reflection. You may want to place these in a document and give them out after the map activity has concluded. Students could work in teams or individually.

Question 15) Virginia only had three locales that were listed among the 15 largest population centers (Norfolk, Richmond, and Albemarle/ Charlottesville). After 200 years, was Virginia's overall population more concentrated in 2010 compared to the early periods?

The answer requires simple statistics. Find the proportion of the Virginia population that lives in a locale by taking the total population of that location and dividing it by the total population of Virginia. Then multiply the quotient by 100. The resulting product shows what proportion of Virginia's population lives at that locale.

The total population of the 15 population centers in 1810 was approximately 29.2% of Virginia's total population. In 1910, the 15 largest population centers amounted for 37.8% of the population, while in 2010 that figure was 59.4%.

Question 16) Generally speaking, how would you describe the majority of population movement and growth in the Virginia over the past two hundred years?

Moving from a rural society to an urban society.

Question 17) Based on population, how Virginia's congressional representation in the House of Representatives changed over 200 years?

While Virginia's population continued to increase, the national population increased at a much greater rate. As a result, Virginia's number of representatives was the greatest in 1810 (23 out of the 182 representatives were allocated to Virginia). In 1910, Virginia had 10 out of 435 representatives. One hundred years later in 2010, Virginia was allocated 11 out of 435 representatives.

ADDITIONAL INFORMATION:

Virginia Population
http://www.virginiaplaces.org/population/pop1810numbers.html
Virginia Cities and Towns
http://www.virginiaplaces.org/vacities/citylocation.html
Information on Virginia Independent Cities
https://www.encyclopediavirginia.org/
Information on the Fall Line
http://www.virginiaplaces.org/regions/fallshape.html

NOTE:
Thanks to National Geographic's Giant Traveling Maps team for the inspiration for this lesson, which is based on "People on the Move", a lesson for the North America Giant Map.

County/Independent City	1810	County/Independent City	1910	County/Independent City	2010
1810 State Population	976,435	**1910 State Population**	2,061,612	**2010 State Population**	8,001,024
Norfolk City/Norfolk County Latitude: 36º 53' 20" N Longitude: 76º 14' 53" W	22,872	**Richmond City** Latitude: 37º 31' 44" N Longitude: 77º 26' 17" W	127,628	**Fairfax County, Fairfax County, Falls Church City, Reston** Latitude: 38º 48' 56" N Longitude: 77º 17' 1" W	1,116,623
Fauquier County/Warrenton Latitude: 39.92 N Longitude: 77.35 W	22,689	**Norfolk County, Portsmouth City** Latitude: 36º 50' 7" N Longitude: 76º17' 79" W	85,934	**Prince William County, Manassas City, Manassas Park City** Latitude: 38º 44' 20" N Longitude: 77º 33' 13" W	454,096
Frederick County/Winchester Latitude: 39.21 N Longitude: 78.27 W	22,574	**Pittsylvania County, Danville City** Latitude: 36º 48' 43" N Longitude: 79º 26' 11" W	69,729	**Virginia Beach City** Latitude: 36º 50' 42" N Longitude" 75º 58' 31" W	437,994
Halifax County/South Boston Latitude: 36º 44' 50" N Longitude: 78º 56' 22" W	22,133	**Norfolk City** Latitude: 36º 53' 20" N Longitude: 76º 14' 53" W	67,452	**Chesterfield County, Colonial Heights City** Latitude: 37º 23' 9" N Longitude: 77º 34' 63"W	333,647
Loudoun County/Leesburg Latitude: 39º 5' 54" N Longitude: 77º 40' 13" W	21,338	**Roanoke City, Roanoke County** Latitude: 37º 16' 18" N Longitude: 79º 56' 26" W	54,497	**Chesapeake City, Portsmouth City** Latitude: 36º 50' 7" N Longitude: 76º17' 79" W	317,744
Buckingham County Latitude: 37º 33' 21" N Longitude: 78º 33' 16" W	20,059	**Lynchburg City, Campbell County** Latitude: 37º 24' 45" N Longitude: 79º 8' 35" W	52,537	**Loudoun County/Leesburg** Latitude: 39º 5' 54" N Longitude: 77º 40' 13" W	312,311
Richmond City/Henrico County Latitude: 37º 31' 44" N Longitude: 77º 26' 17" W	19,680	**Augusta County/Staunton City** Latitude: 38º 10' 45" N Longitude: 79º 9' 9" W	43,049	**Henrico County** Latitude: 37º 32' 43" N Longitude: 77º 25' 24" W	306,935
Culpeper County/Culpeper Latitude: 38º 29' 28" N Longitude: 77º 57' 42" W	18,967	**Halifax County/South Boston** Latitude: 36º 44' 50" N Longitude: 78º 56' 22" W	40,044	**Norfolk City** Latitude: 36º 53' 20" N Longitude: 76º 14' 53" W	242,803
Mecklenburg County/Clarksville Latitude: 36º 40' 47" N Longitude: 78º 18' 53" W	18,453	**Washington County, Bristol City** Latitude: 36º 44' 24" N Longitude: 81º 56' 31" W	39,077	**Roanoke City, Roanoke County, Salem City** Latitude: 37º 16' 18" N Longitude: 79º 56' 26" W	214,210
Albemarle County/Charlottesville Latitude: 38º 1' 45" N Longitude 78º 28' 36" W	18,268	**Accomack County** Latitude: 37º 44' 31" N Longitude: 75º 40' 27" W	36,650	**Arlington County** Latitude: 38º 52' 36" N Longitude: 77º 5' 21" W	207,627
Caroline County Latitude: 38º 1' 55" N Longitude: 77º 21' 44" W	17,544	**Albemarle County, Charlottesville City** Latitude: 38º 1' 45" N Longitude 78º 28' 36" W	36,636	**Richmond City** Latitude 37º 31' 44" N Longitude 77º 26' 17" W	204,214
Pittsylvania County/Danville Latitude: 36º 48' 43" N Longitude: 79º 26' 11" W	17,172	**Rockingham County/Harrisonburg** Latitude: 38º 30' 28" N Longitude: 78º 53' 41" W	34,903	**Newport News City** Latitude: 36º 58' 43" N Longitude: 76º 25' 55" W	180,719
Bedford County/Bedford Latitude: 37º 18' 44" N Longitude: 79º 32' 23" W	16,148	**Wise County** Latitude: 37º 1' 1" N Longitude: 82º 36' 37" W	34,162	**Spotsylvania County, Fredericksburg City** Latitude: 38º 18' 11" N Longitude: 77º 27' 38: W	146,683
Accomack County Latitude: 37º 44' 31" N Longitude: 75º 40' 27" W	15,743	**Bedford County/Bedford** Latitude: 37º 18' 44" N Longitude: 79º 32' 23" W	29,549	**Albemarle County, Charlottesville City** Latitude: 38º 1' 45" N Longitude 78º 28' 36" W	142,445
Brunswick County Latitude: 36º 46' 44" N Longitude: 77º 52' 1" W	15,411	**Mecklenburg County/Clarksville** Latitude: 36º 40' 47" N Longitude: 78º 18' 53" W	28,956	**Alexandria City** Latitude: 38º 48' 16" N Longitude: 77º 2' 36" W	139,966
Population of 15 largest population centers 1810	275,889	Population of 15 largest population centers 1910	780,803	Population of 15 largest population centers 2010	4,758,017

Geographic Regions of Virginia

Maryland

Washington, D.C.

West Virginia

Kentucky

Tennessee

North Carolina

Richmond

Chesapeake Bay

Atlantic Ocean

Appalachian Plateau
(Plateau: Area of elevated land that is flat on top)
➤ Located in Southwest Virginia
➤ Only a small part of plateau located in Virginia

Valley and Ridge
➤ Includes the Great Valley of Virginia and other valleys separated by ridges. (The Blue Ridge Mountains and the Valley and Ridge Regions are part of the Appalachian mountain system.)
➤ Located west of Blue Ridge Mountains

Blue Ridge Mountains
➤ Old, rounded Mountains
➤ Part of Appalachian mountain system
➤ Located between the Piedmont and Valley and Ridge regions
➤ Source of many rivers

Piedmont
Land at the foot of mountains
➤ Rolling hills
➤ West of the Fall Line

Fall Line:
The natural border between the Coastal Plain (Tidewater) and Piedmont regions, where waterfalls prevent further travel on the river

Coastal Plain
(Tidewater)
➤ Flat land
➤ Location near Atlantic Ocean and Chesapeake Bay (includes the Eastern Shore)
➤ East of the Fall Line

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