WASHINGTON

Giant Traveling Map Lesson

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Washington ACADEMIC STANDARDS / SUITABLE DISCIPLINES:

G1: Understands the physical characteristics, cultural characteristics, and location of places, regions, and spatial patterns on the Earth's surface.
G1.2.1 Apply basic mapping elements to read and construct maps of their communities and the world.
G1.2.2 Use maps, globes, and other simple geographic models to identify cultural and environmental characteristics of places.
G1.2.3 Use maps, graphs, photographs and other representations to describe places and the relationships and interactions that shape them.
G1.2.3 Describe the connections between the physical environment of a place and the economic activities found there.
G1.4.1 Construct and use maps to explain the movement of peoples.
G1.4.2 Investigate the physical, political, and cultural characteristics of places, regions, and people in the Pacific Northwest, including the difference between cities, states, and countries.
G1.5.1 Construct and use maps to show and analyze information about European settlement in the United States.
G1.5.4 Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions and their environmental characteristics.

G2: Understands human interaction with the environment.
G2.4.1 Draw a conclusion that the geographic features of the Pacific Northwest have influenced the movement of people.
G2.5.1 Compare and analyze the impact of the European colonists' movement to the Americas on the land of Native American peoples.
G2.5.2 Explain how culture influences the way people modify and adapt to their environments.
G2.5.3 Explain how the cultural and environmental characteristics of places change over time.
G2.5.4 Describe how environmental and cultural characteristics influence population distribution in specific places or regions.
G2.5.5 Explain how cultural and environmental characteristics affect the distribution and movement of people, goods, and ideas.
G2.5.6 Explain how human settlements and movements relate to the locations and use of various natural re-sources.

C1: Understands key ideals and principles of the United States, including those in the Declaration of Independence, Constitution, and other foundational documents.
C2: Understands the purposes, organization, and function of governments, laws, and political systems.
C4: Understands civic involvement.
C4.11-12.4 Evaluate citizens' and institutions' effectiveness in addressing social and political problems at the local, state, tribal, national, and/or international level.

OBJECTIVES:
Participants will:
- Learn about major cities in Washington during three different historical periods
- Practice using grids and cardinal directions to locate cities 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, physical features associated with settlements, 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 map visit or at a later time

MATERIALS:
- Compass rose
- 10 flat markers (small)
- 10 flat markers (larger)
- 10 tall cones
- 10 shorter, flexible cones
- 3 to 4 plastic chains for dividing the state
- List of Washington cities by population for four selected time periods

PREPARATION:
- Discuss reasons why people live in different places
- Consider push and pull factors in migration
- Review historical settlement patterns in Washington
- Review Washington era info, and relevant regional, national, global info [see SOURCES provided at end of lesson]
- Develop predictions by participants about where they think people might live

RULES:
- Shoes are not allowed on the map. Please have participants remove shoes before walking on the Giant Map.
- Participants should wear socks on the Giant Map.
- No writing utensils on the Giant Map.
- No sliding on the Giant Map.

DIRECTIONS:
Using the list of cities and colored cones, participants will locate the ten most populous cities in Washington for the four time periods selected. They will then look for trends based on the east/west axis and north/south axis, waterways and other transportation networks adjacent to and within Washington, defensive and other settlements from the 18th century, and the distribution of resources. Encourage speculation about the factors that contributed to population development among the various regions of the state.

On the map:
1. Provide participants with an overview about exploring the top ten populated places in Washington in the four time periods using the U.S. Census data provided as a source of information.
2. Remind participants that not all places in the population lists may be labeled on the map, and they will need to use extra information to locate those towns.
2. Ask participants about what life was like and the kind of work they imagine people were doing in Washington in the first time period. Ask them to predict where people might be living. (If needed, ask the participants to consider where they live and why? What does a location need for people to live there?)
3. Take 10 of the small flat markers. Pass them out to 10 of the participants (usually just ask them to take one and pass the remainder along).
4. Read the 10 largest cities one at a time, going down the row of participants and asking the participants to place the marker on the dot identifying the town (star in the case of Olympia).
5. Remind the participants that they can provide assistance to their classmates or colleagues about the location of a city based on cardinal directions or the grid. They should avoid shouting "over there", "this way", "left/right", etc. From the beginning of the lesson, model the use of cardinal directions or the grid. Students may use the compass. Place NSEW labels on the walls or around the map.
6. After the flat, round markers are all on the map, ask the participants to interpret the new information that has been added to the map. Remind them that this is similar to adding a layer to a geographic information systems map.
7. Move on to the next census year and ask participants what jobs people were doing then. Ask them to predict where people might be living.
8. Pass out the 10 large flat markers. Assign individual participants to place their cones on the 10 cities. For cities in the top 10 list by population in both years, have participants pick up the small marker and place it on top of the larger one.
9. After the larger markers are all on the map, repeat Item 6 above, asking participants to think about what has changed and why.
10. Repeat process with next two time periods of census data and the two types of cones. Start with the smaller orange cones, and have participants put the orange cone on top of the large cone (and the flat markers on top of them) if the city was also in the top 10 in previous years.
11. Discuss where most of the people live and why. What areas of the state have no large settlements? Why? This is also an opportunity to review the concentration of people in the state in terms of electoral districts.

NOTES:
Review the Washington State Resources included at the end of this lesson for contextual information for the time periods highlighted in this lesson.

GUIDING QUESTIONS:

Q. What factors influence where people settle(d)?
A. There are many factors that will ebb and flow during different time periods. General patterns to consider: transportation routes (e.g. access to ports large enough for major shipping, use of rivers as conduits; John Mullan's 19th Century explorer routes that later carve out roads and highways; Federal Highways initiative); physical geography (e.g. Puget Sound, Cascades, Central Washington, glaciation and subsequent Missoula Floods that lead to fertile lands in Central Washington and the channeled scablands of East Washington); railroad (e.g. continental routes connecting back to Chicago and points east for trade, local routes creating sole reason for towns' existence); land tenure (e.g. Homestead Act, Railroad land grants); energy and other natural resources (e.g. water for hydropower, timber, mining,

etc); national-level directives (e.g. military – Hanford, importation of immigrant labor for specific industries like railroad, agriculture, World War II internment camps).

THE ACTIVITY IS INTENDED TO ALLOW COMPARISONS OF ANY FOUR TIME PERIODS BETWEEN 1880 AND 2010. ANSWERS WILL VARY DEPENDING ON THE TIME PERIODS SELECTED: AN EXAMPLE USING 1880, 1920, 1970, AND 2010 IS SHOWN BELOW.

Q. How many of the ten largest cities in each time period are located along a river or lake?
A.

1880	1920	1970	2010
~9	~9	~10	~8

Q. How many of the cities were in the various regions? Are they spread evenly or grouped together?
A.

Region	1880	1920	1970	2010
Coastal Range	2	2	1	0
Puget Sound Lowlands	7	5	6	7
Cascade Range	1	1	1	1
Plateau	0	1	1	0
Rocky Mountain	0	1	1	2

Q. For what reasons did this pattern exist?
A. Transportation opportunities, employment opportunities

Q. How did Washington compare with the rest of the United States?
A. What percentage of the population in the United States has lived in Washington? How has it changed over time? How much has the population of the country and the state increased?

	1880	1920	1970	2010
Washington	75,116	1,356,621	3,409,169	6,746,000
United States	50,189,209	106,021,537	203,302,031	308,745,538

Q. How many cities in the new top ten in year A were also in the top ten in year B? What percentage is that?
A. Follow this formula: (1) Subtract column B from A (2) then, divide by column B.

Q. Where are most of the large cities in Washington located in the most recent census year (2010)? Why?
A. Near Seattle.

Q. Does the concentration of population into major cities and their suburbs significantly change over time?
A. The concentration of population in major cities is greater in 2010.

Q. Generally speaking, how would you describe the majority of population movement and growth in the Washington over the past one hundred years?
A. It has moved toward the coast.

Q. Why? What factors have encouraged people to move and live in cities?
A. Jobs.

MODIFICATIONS:

For younger participants, focus on the map key and compass rose. For older participants, invite them to have more autonomy in the lesson and incorporate additional mathematical concepts.

EXTENSIONS:

Consider using the census data in math lessons. How much larger is Seattle today than in 1880? How much larger is Seattle than the 15th largest city? How concentrated is the population in Seattle over time? How did the population of your city change?

For use with the GeoCivics activities (https://www.uccs.edu/geocivics/), invite participants to think about the current configuration of United States Congressional Districts in the state. Ask them to remember the key characteristics of how districts are drawn (equal population and contiguous). Invite them to pretend that their state has just two Congressional Districts; ask two people to pick up one of the chains and divide the state generally in half by population; invite two more people to divide the state into four districts (they may choose to move the original chain, or not). Discuss why some districts would likely be smaller in area than others. If appropriate, determine how to divide the state into state senate districts.

Consider when a giant floor map is a good tool for understanding geographic phenomena and when other tools (paper maps, online maps) might be more appropriate.

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.

RESOURCES:
Office of Superintendent of Public Instruction
https://www.k12.wa.us/student-success/resources-subject-area/social-studies/learning-standards

MAPS
- WA State Railroad Map, 1910
  https://www.sos.wa.gov/legacy/maps/maps_detail.aspx?m=31
- WA State Highway Map, 1950
  https://www.sos.wa.gov/legacy/maps/maps_detail.aspx?m=29
- Western Washington Railroad Land Grants, 1892
  https://www.sos.wa.gov/legacy/maps/maps_detail.aspx?m=77
- WA State Industry Map, 1937
  https://www.sos.wa.gov/legacy/maps/maps_detail.aspx?m=69

READINGS
- *Simply Washington* booklet (WA Secretary of State)
  https://www.sos.wa.gov/office/simplywashington2014.aspx
- *History of the Washington Legislature* (WA Secretary of State)
  https://www.sos.wa.gov/library/publications_detail.aspx?p=75
- Rowe, Kara. 2018. "Agriculture in Washington, 1792-1900," History Link,
  https://www.historylink.org/File/20523
- Rowe, Kara. 2018. "Agriculture in Washington Since 1900," History Link,
  https://www.historylink.org/File/20524

City	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
Aberdeen			3,747	13,660	15,337	21,723								
Bellevue											73,903	86,872	109,569	122,363
Billingham		8,135	11,062	24,298	25,585	30,823	29,314	34,112	34,688	39,375	45,794	52,179	67,171	
Bremerton							15,134	27,768	28,922	35,307	36,208			
Centralia		2,026												
Colfax	444													
Dayton	996													
Ellensburg		2,768												
Everett				24,814	27,644	30,567	30,224	33,849	40,304	53,622	54,415	69,974	91,488	103,019
Federal Way												67,449	83,259	
Goldendale	545													
Kent													79,524	92,411
Hoquiam				8,171	10,058	12,766								
Kennewick											34,391	42,152		
Longview								20,339		28,373				
Olympia	1,232	4,698	3,863	6,996										
Port Gamble	421													
Port Townsend	917	4,558	3,443											
Renton														90,927
Richland										26,290				
Seattle	3,533	42,837	80,671	237,194	315,312	365,583	368,302	467,591	557,087	530,831	493,846	516,259	563,374	608,660
Spokane		19,222	36,848	104,102	104,437	115,514	122,001	161,721	181,608	170,516	171,300	177,165	195,629	208,916
Spokane Valley														89,755
Tacoma	1,008	36,006	37,714	83,743	96,965	106,817	109,408	143,673	147,979	154,581	158,501	176,664	193,556	198,397
Vancouver	1,722	3,545	3,126		12,637	15,766	18,788	41,664	32,464	42,493		46,380	143,560	161,791
Walla Walla	3,588	4,709	10,049	19,364	15,503	15.976	18,109	24,102						
Yakima			3,154	14,082	18,539	22,101	27,221	38,486	43,284	45,588	49,826	54,843	71,845	91,067
Washington	75,116	357,232	518,103	1,141,990	1,356,621	1,563,396	1,736,191	2,378,963	2,853,214	3,409,169	4,132,156	4,866,692	5,894,121	6,724,540

	City	2020*	√
	State	7,705,281	
1	Seattle	737,015	
2	Spokane	228,989	
3	Tacoma	219,346	
4	Vancouver	190,915	
5	Bellevue	151,854	
6	Kent	136,588	
7	Everett	110,629	
8	Renton	106,785	
9	Spokane Valley	102,976	
10	Federal Way	101,030	
11	Yakima	96,968	
12	Kirkland	92,175	
13	Bellingham	91,482	
14	Auburn	87,256	
15	Kennewick	83,921	

*2020 Census data is from Redistricting Data Hub using the State and Place level PL 94-171 datasets.
https://redistrictingdatahub.org/data/download-data/#state-menu