PENNSYLVANIA

Giant Traveling Map Lesson

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PENNSYLVANIA ACADEMIC STANDARDS / SUITABLE DISCIPLINES:

Standard Area 7.1: **Basic Geographic Literacy**
Standard - 7.1.3.A: Identify how basic geographic tools are used to organize and interpret information about people, places and environment.
Standard - 7.1.3.B: Identify and locate places and regions as defined by physical and human features.
Standard - 7.1.C.A: Use geographic tools to analyze information about the interaction between people, places, and the environment.

Standard Area 7.2: **Physical Characteristics of Places and Regions**
Standard - 7.2.3.A: Identify the physical characteristics of places and regions.

Standard Area 7.3: **Human Characteristics of Places and Regions**
Standard - 7.3.4.A: Identify the human characteristics of places and regions using the following criteria: Population, Culture, Settlement, Economic activities, Political activities

Standard Area 7.4: **Interactions Between People and the Environment**
Standard - 7.4.5.A: Describe and explain the effects of the physical systems on people within regions.
Standard - 7.4.5.B: Identify the effect of people on the physical systems within a community.

Standard Area 5.3: **How Government Works**
Standard - 5.3.3.E: Explain the purpose for elections.
Standard - 5.3.4.E: Explain the voting process.
Standard - 5.3.4.F: Explain how different perspectives can lead to conflict.
Standard - 5.3.C.D: Evaluate the roles of political parties, interest groups, and mass media in politics and public policy.
Standard - 5.3.C.E: Compare and contrast the different election processes for local, state, and national offices.

Standard Area 8.2: **Pennsylvania History**
Standard - 8.2.4.A: Differentiate common characteristics of the social, political, cultural, and economic groups from Pennsylvania.
Standard - 8.2.4.D: Distinguish between conflict and cooperation among groups and organization that impacted the history and development of Pennsylvania

Standard - 8.2.C.B: Demonstrate an understanding of how the PA Constitution and the US Constitution co-exist.

OBJECTIVES:

Participants will:

- Learn about major cities in Pennsylvania 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
- 15 flat markers
- 15 tall cones
- 15 shorter, flexible cones
- 2 to 3 long chains
- List of Pennsylvania cities by population for 1840/1910/2010

PREPARATION:

- Discussion about reasons why people choose to live in different places
- Review of historical settlement patterns in Pennsylvania
- Development of predictions by participants about where they think people might live
- Consideration of push and pull factors in migration

RULES:

- Shoes are not allowed on the map. Please have participants remove shoes before walking on the map in their socks.
- No writing utensils on the map.
- No sliding on the map.

DIRECTIONS:

Using the list of cities and colored cones, participants will locate the fifteen most populous cities in Pennsylvania for the years 1840, 1910, and 2010. They will then look for trends based on the east/west axis and north/south axis, waterways adjacent to and within Pennsylvania, and defensive settlements from the 18th century. 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 fifteen populated places in Pennsylvania in 1840, 1910, and 2010 using U.S. Census data as a source of information.
2. Ask participants about the kinds of jobs they imagine people were doing in Pennsylvania in 1840. Ask them to predict where people might be living.
3. Take 15 of the round makers. Pass them out to 15 participants (usually just ask them to take one and pass the remainder along).
4. Read the 15 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 Harrisburg). Alternatively, people can provide educated guesses about large cities. Students could also undertake the research as part of a larger project.
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", etc. Suggest they use existing landmarks as reference points, e.g. "north of Gettysburg".
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 geospatial technology program. Note the types of physical features that are close to settlements. Discuss the number of cones near Philadelphia.
7. Move on to the 1910 census and ask participants what jobs people were doing then. Ask them to predict where people might be living.
8. Pass out the 15 larger cones. Assign individual participants to place their cones on the 15 cities. For cities in the top 15 list by population in both 1840 and 1910, have participants pick up the flat marker and place it on top of the cone.
9. After the larger cones are all on the map, repeat Item 6 above, asking participants to think about what has changed and why.
10. Repeat process with 2010 census data and smaller or flexible orange cones. Have participants put the orange cone on top of the flat, round marker creating a pyramid, or on top of the large cone if the city was previously in the top 15 only in 1910.
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.
12. Ask participants to consider divisions in the state due to physical features, natural resources, and historical development.

GUIDING QUESTIONS:

Tell participants that at the beginning of Pennsylvania history agriculture was a main industry in the state. Ask what other factors might have influenced where people settled.

Land was originally settled by William Penn, who was involved with colonization before founding Pennsylvania well-after many of the British colonies in 1681. His prior experience with town planning and land allocation empowered him to embark upon a "holy experiment" to entice settlers to come to Pennsylvania to enjoy the privilege of religious freedom. Twenty-three vessels comprised of Quakers arrived originally, and grew quickly when word spread about the productivity of the land for agriculture. Due to peaceful negotiations with Native Americans, detailed land planning by Penn, and the strong vision of English, Welsh, and German Quaker leadership, Philadelphia became a model city of the colony and competed strongly with older cities for being the top trading port with Britain.

The original Quaker settlers commonly settled near Philadelphia with others of similar background, forming enclaves. However, by 1690, Pennsylvania's population spilled out of Philadelphia and the Delaware River Valley and expanded north and west, being hemmed in by the Blue, Pocono, and Appalachian Mountains that run from southwest to northeast across the midsection of the state. Rural settlements at the time had many similarities to European trends and attracted a continual flood of German and Scots-Irish settlers as the "best poor man's country" for farming. By 1755, immigration virtually ceased for more than a decade due to the French and Indian War. All of the Great Valley and Piedmont regions were inhabited, and settlement continued to spread westward and northward beyond the bounds of the colony.

Q. How many of the fifteen largest cities are located along a river or lake in 1840? 1910? 2010?

1840	1910	2010
15	14 (not Altoona)	13 (Not Altoona or State College)

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

1840	1910	2010
Pittsburgh area – 2 Philadelphia / Lehigh Valley– 8 Central - 5	Pittsburgh area – 3 Philadelphia / Lehigh Valley – 3 Erie area – 1 Poconos – 2 Central – 4 Allegheny Mountains and Valleys - 2	Pittsburgh area – 1 Philadelphia area – 3 Erie area – 1 Poconos region – 2 Central – 6 Allegheny Mountains and Valleys - 2

Q. For what reasons did this pattern exist?
A. The most populated cities were connected by the Pennsylvania Turnpike, railroad lines, or waterways for transportation and commerce. The Consolidation Act of 1854 put together all townships, districts, and boroughs within the county of Philadelphia, so instead of having many small towns, Philadelphia became one big city.
Employment opportunities were favorable in Pennsylvania and the most populated cities were major hubs for producing steel, coal, iron, railroads, petroleum and manufactured goods. Philadelphia serves as a major international seaport.

Q. How did Pennsylvania compare with the rest of the United States? What percentage of the population in the United States has lived in Pennsylvania? How has growth changed over time?

A.

1840	1910	2010
PA: 1,744,033	PA: 7,665,111	PA: 12,702,379
US: 17, 069,453	US: 92,228,496	US: 308,745,538
Pennsylvania was the second most populated state in 1840, following New York.	Pennsylvania was the second most populated state in 1910, following New York.	Pennsylvania was the sixth most populated state in 2010, following CA, TX, NY, FL, and IL.

After adding cones from the 1910 Census, ask participants to consider how many of the cities are in rural areas.

Q. How many cities in the new top fifteen in 1910 were also in the top fifteen in 1840? What percentage is that?
A. 7, just under half. However, you have to consider the number of cities that were subsumed into Philadelphia.

Q. How many cities in the new top fifteen in 2010 were also in the top fifteen in 1840? In 1910?
A. 6 have all three markers. 11 were top ten in both 1910 and 2010.

Q. Where are most of the large cities in Pennsylvania located in 2010? Why?
A. In former industrial centers, largely located in the Eastern half of the state.

Q. Are major cities and suburbs significantly more concentrated than they were in 1910?
A Depending on which suburbs are counted as being part of major cities, the concentration of population in major cities might be similar to what it was in 1910.

Q. What factors have encouraged people to move and live in cities?
A. Opportunities for jobs and other services that are not available in less populated parts of the state are current growth factors in the more populated areas.

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 Philadelphia today than in 1840?   1910? How much larger is Philadelphia than the 15th largest city? How concentrated is the population in Philadelphia 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.

Ask participants to imagine that they have to divide the state into two congressional districts. Use a chain to divide the state into two districts with roughly equal population. Then use a second chain to divide the state into four districts.

Explore the demographic make-up of the population in the different years. What was the median age? The number of males and females? How does the racial and ethnic make-up of the population shift over time?

1840	1910	2010
		Racial Breakdown: White: 81.9% Black: 10.9% Asian: 2.8% Native: 0.2% Hawaiian: 0% Other: 2.4% Two or more races: 1.9%
		Ancestry: German: 28.5% Irish: 18.2% Italian: 12.8% African America: 9.6% English: 8.5% Polish: 7.2% French Canadian: 4.2%

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.
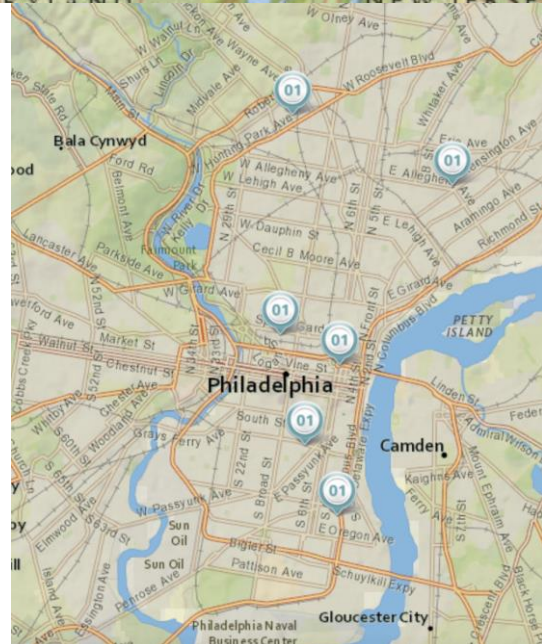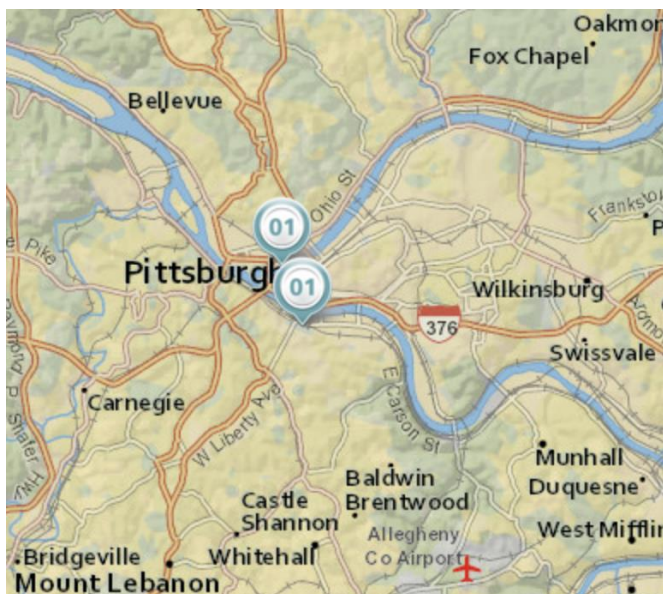
RESOURCES:

Pennsylvania Department of Education Social Studies Standards
https://www.education.pa.gov/Teachers%20-
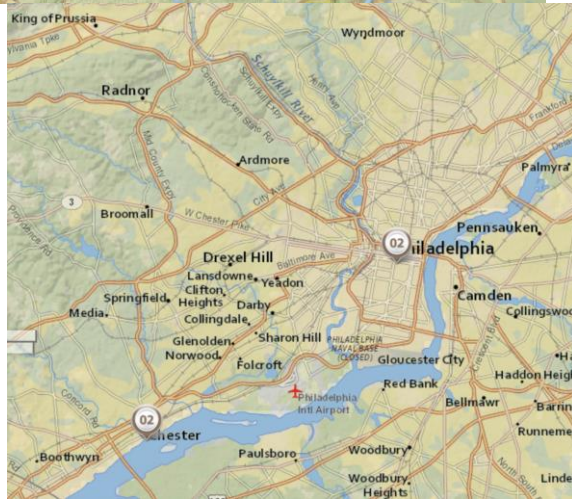%20Administrators/Curriculum/SocialStudies/Pages/default.aspx

Consolidation Act of 1854
https://philadelphiaencyclopedia.org/archive/consolidation-act-of-1854/

Map of 1840 Markers

Map of 1910 Markers

Map of 2010 Markers

City	1840	√	City	1910	√	City	2010	√
State	**1,724,033**		**State**	**7,665,111**		**State**	**12,702,379**	
Philadelphia	93,665		Philadelphia	1,549,008		Philadelphia	1,526,006	
No. Liberties	34,474		Pittsburgh	533,905		Pittsburgh	305,704	
Spring Garden	27,849		Allegheny	145,200		Allentown	118,032	
Southwark	27,548		Scranton	129,867		Erie	101,786	
Kensington	22,314		Reading	96,071		Reading	88,082	
Pittsburgh	21,115		Wilkes-Barre	67,105		Scranton	76,089	
Moyamensing	14,573		Erie	66,525		Bethlehem	74,982	
Allegheny	10,089		Harrisburg	64,186		Lancaster	59,322	
Lancaster	8,417		Johnstown	55,482		Levittown	52,983	
Reading	8,410		Altoona	52,127		Harrisburg	49,528	
Harrisburg	5,980		Allentown	51,913		Altoona	46,320	
Easton	4,865		Lancaster	47,227		York	43,718	
York	4,779		York	44,750		State College	42,034	
Carlisle	4,351		Mckeesport	42,694		Wilkes-Barre	41,498	
Pottsville	4,345		Chester	38,537		Norristown	34,324	

Source: United States Census

https://github.com/cestastanford/historical-us-city-populations/blob/master/data/1790-2010_MASTER.csv