

Giant Map Lesson

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OHIO ACADEMIC STANDARDS / SUITABLE DISCIPLINES:

GEOGRAPHY

Students use knowledge of geographic locations, patterns and processes to show the interrelationship between the physical environment and human activity and to explain the interactions that occur in an increasingly interdependent world. Students use knowledge of perspectives, practices and products of cultural, ethnic and social groups to analyze the impact of their commonality and diversity within local, national, regional and global settings.

Ohio in the United States The fourth-grade year focuses on the early development of Ohio and the United States. Students learn about the history, geography, government and economy of their state and nation. Foundations of U.S. history are laid as students study prehistoric Ohio cultures, early American life, the U.S. Constitution, and the development and growth of Ohio and the United States. Students begin to understand how ideas and events from the past have shaped Ohio and the United States today.

GOVERNMENT

Students use knowledge of the purposes, structures and processes of political systems at the local, state, national and international levels to understand that people create systems of government as structures of power and authority to provide order, maintain stability and promote the general welfare. They use knowledge of the rights and responsibilities of citizenship to examine and evaluate civic ideals and to participate in community life and the American democratic system.

Civic Participation and Skills

Civic participation embraces the ideal that an individual actively engages in his or her community, state or nation for the common good. Students need to practice effective communication skills including negotiation, compromise and collaboration. Skills in accessing and analyzing information are essential for citizens in a democracy.

American Government

Students examine the Founding Documents which form the basis for the United States of America and how the American people govern themselves at national, state and local levels of government is the basis for this course. Students may also impact issues addressed by governments through service learning and senior projects.

- 1. Opportunities for civic engagement within the structures of government are made possible through political and public policy processes.
- 2. Political parties, interest groups and the media provide opportunities for civic involvement through various means
- 15. Historically, the United States has struggled with majority rule and the extension of minority rights. As a result of this struggle, the government has increasingly extended civil rights to marginalized groups and broadened opportunities for participation.

OBJECTIVES:

Participants will:

- Learn about major cities in Ohio 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
- List of Ohio cities by population for 1820/1910/2010

PREPARATION:

- Discussion about reasons why people choose to live in different places
- Review of historical settlement patterns in Ohio
- 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.
- Participants should wear 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 Ohio for the years 1820, 1910, and 2010. They will then look for trends based on the east/west axis and north/south axis, waterways adjacent to and within Ohio, and defensive settlements from the $18^{\rm th}$ 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 Ohio in 1820, 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 Ohio in 1820. Ask them to predict where people might be living.
- 3. Take 15 of the round makers. Pass them out to 15 of the 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 Columbus).
- 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.
- 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.
- 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 individuals participants to place their cones on the 15 cities. For cities in the top 15 list by population in both 1820 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.

GUIDING QUESTIONS:

Tell participants that at the beginning of Ohio history agriculture was a main industry in the state.

Q. What other factors influence where people settle(d)?

A. Water, safety, transportation routes, physical geography

Q. How many of the fifteen largest cities are located along a river or lake in 1820? 1910? 2010?

A.	

1820	1910	2010
12	11	12

Q. How did Ohio's population compare with the rest of the United States?

A. What percentage of the population in the United States has lived in Ohio? How has it changed over time? How has does that compare to the growth of the population in the US?

	1820	1910	2010
Ohio	230,760	4,767,121	2,915,918
United States	7,239,881	92,228,496	308,745,538

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

A.

4.1.		
1820	1910	2010
Central - 3	Central - 3	Central - 1
Northeast - 3	Northeast - 5	Northeast - 7
Northwest	Northwest - 2	Northwest - 1
Southeast - 4	Southeast	Southeast
Southwest - 5	Southwest - 5	Southwest - 6

Q. For what reasons did this pattern exist?

A. Distribution of the cities was impacted by transportation as well as Ohio's landscape and the economy. The population reflected the path of the Erie Canal system, the Baltimore &Ohio Railroad, toll roads, and eventually the interstate system. The first settlements were ancient cultures including the Hopewell Culture, which developed early agricultural settlements. Marietta was the first European settlement in the Eastern part of the state. More settlements lead to more agriculture and deforestation, as well as an increase in modes of transportation, population, and varied economic activity. This leads to development of cities, which brought manufacturing, as well as steel and coal industries leading up to and following the Civil War.

Q. How many cities in the new top fifteen in 1910 were also in the top fifteen in 1820? What percentage is that?

A. 11, 73%

Q. How many cities in the new top fifteen in 2010 were also in the top fifteen in 1820? In 1910?

A. 1820: 7 of 15: 1910: 9 of 15

Q. Where are most of the large cities in Ohio located in 2010? Why?

A. The cities are in former industrial centers, on rivers, or are suburbs of population centers. Consider how many of the cities are in rural areas

Q. Are major cities and suburbs are 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 is similar to what it was in 1910.

Q. Generally speaking, how would you describe the majority of population movement and growth in the Ohio over the past two hundred years?

A. European settlements started along the Ohio River and grew north. Following mechanization of agriculture and industrialization, more people moved to cities.

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

A. Jobs and amenities were more readily available.

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:

Math

Consider using the census data in math lessons. How much larger is Columbus today than in 1920? How much larger is Columbus than the 15th largest city? How concentrated is the population in Columbus over time? How did the population of your city change?

Physical Geography

Have students make generalizations based on the physical features to understand why people settled in certain places originally as well as the factors that lead to Ohio's population shifts over time. The most obvious generalization is how many cities are located along bodies of water. This would allow for critical thinking, by having students make inferences based on observations then understanding how generalizations go beyond an inference when applied; in this case making the generalization that most major cities across states, countries, world are located along water and discussing why.

Identify federal and state protected lands on the Giant Map (or tabletop maps) such as Wayne National Forest and how these areas impact population and economic activity. What economic opportunity and migration to the cities have taken place over what time periods? How has shale hydraulic fracking impacted economic development, population density and environmental changes in these areas? Use online or downloadable topographical maps in conjunction with the Giant Map of Ohio.

Have students research, identify, and label on the map where minerals (iron ore, coal) and other natural resources (shale, natural gas, forests, rich soil) are located to develop understanding of types of economic activity that contributed to migration and population growth. What inferences can you make about the types of industry in the past and present based on the state's mineral or natural resources? This can lead to going deeper in energy and fossil fuel topics that contribute to economic and population growth and decline, as well as environmental issues.

Identify with cones or string the boundary between the glaciated/un-glaciated part of Ohio. Identify and compare the advantages and disadvantages of the terrain in the southeastern part of the state to the rest of the state.

Human Geography

Have students research, identify and label transportation systems (past and present) and make connections to population, economic activity, and human impact on the environment.

Have students create a T chart to identify human/cultural and physical/natural characteristics that distinguish the physiographic regions as well as other terminology to describe a region (i.e. Appalachia Ohio or the foothills of Appalachian Mountains). Why is

Ohio referred to or considered to be in the Midwest? What role does the Northwest Ordinance play in regional identification? Explore this discussion about the Midwest. https://www.citylab.com/life/2019/08/where-is-the-midwest-map-geography-great-lakes-rust-belt/597082/

Underground Railroad

Have students trace the underground railroad and link the places on the map. Students can make inferences why the routes were chosen (quickest and easiest? safest?). Analyze two or more of the routes on the map. What geographic challenges existed? https://www.pinterest.com/pin/417708934159048793/

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:

Ohio Department of Education Social Studies http://education.ohio.gov/Topics/Learning-in-Ohio/Social-Studies

Maps

http://geosurvey.ohiodnr.gov/publications-maps-data/free-downloads/maps http://geosurvey.ohiodnr.gov/major-topics/interactive-maps https://geosurvey.ohiodnr.gov/portals/geosurvey/PDFs/Misc_State_Maps&Pubs/physio.pdf

United States Department of Agriculture, Forest Service https://www.fs.usda.gov/detailfull/wayne/maps-pubs/?cid=stelprdb5068351&.

Background

https://www.newworldencyclopedia.org/entry/Ohio http://www.ohio.org/regions

Landforms of Ohio Map

http://geosurvey.ohiodnr.gov/portals/geosurvey/PDFs/Misc_State_Maps&Pubs/Landforms_withCitation.pdf

Jobs in Ohio Region Map http://ohiolmi.com/maps/MapofJobsOhio.htm

Ohio labor market and current data http://ohiolmi.com/maps/maps.htm

City	1820	V	City	1910	٧	City	2010	٧
State	581,434		State	4,767,121		State	11,536,504	
Cincinnati	9,642		Cleveland	560,663		Columbus	837,038	
Steubenville	2,479		Cincinnati	363,591		Cleveland	389,165	
Chillicothe	2,426		Columbus	181,511		Cincinnati	298,011	
Zanesville	2,052		Toledo	168,497		Toledo	280,854	
Springfield	1,868		Dayton	116,577		Akron	198,508	
Canton	1,398		Youngstown	79,066		Dayton	141,143	
Lebanon	1,079		Akron	69,067		Parma	80,088	
Dayton	1,000		Canton	50,217		Canton	72,163	
Gallipolis	830		Springfield	46,921		Youngstown	65,161	
Columbus	777		Lima	41,326		Lorain	63,714	
Marietta	746		Hamilton	35,279		Hamilton	62,259	
Hamilton	660		Zanesville	28,026		Springfield	59,761	
Cleveland	606		Newark	25,404		Kettering	55,720	
Portsmouth	527		Portsmouth	23,481		Elyria	53,928	
Newark	410		Steubenville	22,391		Lakewood	50,866	41.5 N 81.8 W
Middletown	314		Mansfield	20,768		Cuyahoga Falls	49,353	
Mansfield	288		Marion	18,232		Middletown	48,527	
Marion	287		Warren	11,081		Newark	48,477	
Youngstown	273		Chillicothe			Euclid	47,863	
						Mansfield	46,902	

Source: United States Census

	City	2020*	$\sqrt{}$
	State	11,799,448	
1	Columbus	905,748	
2	Cleveland	372,624	
3	Cincinnati	309,317	
4	Toledo	270,871	
5	Akron	190,469	
6	Dayton	137,644	
7	Parma	81,146	
8	Canton	70,872	
9	Lorain	65,211	
10	Hamilton	63,399	
11	Youngstown	60,068	
12	Springfield	58,662	
13	Kettering	57,862	
14	Elyria	52,656	_
15	Cuyahoga Falls	51,114	

^{*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