

# MISSOURI

## Giant Traveling Map Lesson

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### **Missouri ACADEMIC STANDARDS / SUITABLE DISCIPLINES:**

Missouri Learning Standards:

K-5 Social Studies Grade Level Expectations:

3. Knowledge of continuity and change in the history of Missouri and the United States.

3a. Understand the movement of people from many regions of the world to North America.

3f. Westward Expansion and settlement in the U.S.

5. Knowledge of major elements of geographical study and analysis and their relationship to changes in society and the environment.

5a. Reading and constructing maps.

5b. Understanding the concept of location to make predictions and solve problems.

5c. Understanding the concept of place.

5d. Relationships within places Human-Environment interactions.

5e. Understanding relationships between and among places.

5f. Understanding relationships between and among regions.

5g. Using geography to interpret, explain and predict.

7. Knowledge of the use of tools of social science inquiry.

7b. Use visual tools to communicate information and ideas.

6-12 Social Studies Grade Level Expectations:

3. Geographical Study.

Theme 1. Tools of Social Science Inquiry.

Theme 2. Key Concepts and Understandings.

5. People, Groups and Cultures.

Theme 1. Tools of Social Science Inquiry.

Theme 2. Key Concepts and Understandings.

### **OBJECTIVES:**

Participants will:

- Learn about major cities in Missouri 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
- 3 to 4 plastic chains for dividing the state
- List of Missouri cities by population for 1870/1950/2010

**PREPARATION:**

- Discuss reasons why people choose to live in different places
- Review historical settlement patterns in Missouri
- Review Missouri historical era information. See “Timeline of Missouri History”, <https://www.sos.mo.gov/archives/history/timeline/timeline1>. Other resources that provide a good historical and geographic background include *Missouri: A History* (Paul C. Nagel, 1977), *Missouri: The Heart of the Nation* (William E. Parrish, Charles T. Jones, Jr., and Lawrence O. Christensen, 2004), and *Missouri: A Geography* (Milton D. Rafferty, 1983).
- Develop predictions by participants about where they think people might live
- Consider 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 on the map.
- 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 Missouri for the years 1870, 1950, and 2010. They will then look for trends based on the east/west axis and north/south axis, waterways adjacent to and within Missouri, and defensive settlements from the 18<sup>th</sup> 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 Missouri in 1870, 1950, 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 Missouri in 1870. 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 15 of the round markers. 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 (a star in the case of Jefferson City).
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 1950 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 1870 and 1950, 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 1950.
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 Missouri history eras for contextual information for the time periods highlighted in this lesson.

### **GUIDING QUESTIONS:**

#### **Q. What factors influenced where people initially settled?**

A. Water-based transportation routes along the two major rivers in the state (the Mississippi and the Missouri) were the most influential factor that shaped the settlement of Missouri before 1870. The Missouri River Valley was the primary migration trunk line that enabled settlers to move east-to-west (or vice versa) across the state. Travelers came from various locations in the East by road or river to St. Louis, traveled westward along the river through Mid-Missouri, and departed the river in the Kansas City area to take overland routes to the West.

Missouri’s physical regions also influenced our population distribution. Early settlers avoided the limited resources and agricultural possibilities of the Ozarks (except for a limited number of French explorers and early American entrepreneurs who mined lead and other minerals at the eastern edge of the Ozark Plateau.) The Southeast Lowlands (including the Bootheel) was a swampy lowland that was not settled until after early 1900s drainage projects were completed. The prairies of northern Missouri lacked

reliable water resources and were sparsely settled until around the time of the Civil War when competing railroads constructed lines across the Northern Plains, triggering economic and population growth.

By 1850, the state was fairly well settled, except for a small unpopulated region along the Arkansas border in south-central Missouri. However, the early distribution of population was very uneven.

**Q. How many of the fifteen largest cities are located adjacent to a major river in 1870? 1950? 2010?**

A.

1870	1950	2010
10	7	7

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

A.

1870	1950	2010
St. Louis area - 2	St. Louis area - 5	St. Louis area - 6
Kansas City area - 2	Kansas City area - 2	Kansas City area - 4
Mid-Missouri - 4	Mid-Missouri - 3	Mid-Missouri - 2
Ozarks - 1	Ozarks - 2	Ozarks - 2
Northern Plains - 5	Northern Plains - 2	Northern Plains - 1
Southeast Lowlands - 1	Southeast Lowlands - 1	Southeast Lowlands - 0

**Q. For what reasons did this pattern exist?**

A. Missouri's top 15 cities in 1870 were heavily influenced by river transportation. As well, railroad construction across the state (in the 1850s and afterward) fueled urban growth in the Northern Plains. The isolated Ozarks and Southeast Lowlands offered minimal economic possibilities to settlers and were poorly represented in the 1870 Census. By 1950, St. Louis City was at its population peak and several St. Louis suburbs were represented on the top 15 list. An ongoing rural-to-urban migration was in the process of depopulating small towns and agricultural communities in northern and southern Missouri as available jobs, enhanced quality of life, and other amenities pulled people to the major cities of the state. Today, the sprawling metropolitan regions of St. Louis and Kansas City contain a large percentage of Missouri's residents (and ten of the fifteen largest cities in the state). Since the 1960s, a network of interstate highways has replaced rivers as the main mode of transportation. Communities in the Ozarks, Northern Plains, and Southeast Lowlands away from interstate corridors typically have stagnant job growth and struggle to retain younger, highly educated residents.

**Q. How did Missouri compare with the rest of the United States?**

A.

	1870	1950	2010
Missouri	1,721,295	3,954,653	5,988,952
United States	38,558,371	161,325,798	308,745,538

**Q. How many cities in the new top fifteen in 1950 were also in the top fifteen in 1870? What percentage is that?**

A. Nine of 15 (St. Louis, Kansas City, St. Joseph, Hannibal, Springfield, Sedalia, Jefferson City, Cape Girardeau, Independence), 60%

**Q. How many cities in the new top fifteen in 2010 were also in the top fifteen in 1870? In 1950?**

A. 1870: seven of 15 (Kansas City, St. Louis, Springfield, Independence, St. Joseph, St. Charles, Jefferson City); 46.6%

1950: eight of 15 (Kansas City, St. Louis, Springfield, Columbia, Independence, St. Joseph, Joplin, Jefferson City); 53.3%

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

A. Currently, ten of the largest 15 cities in the state are in the St. Louis and Kansas City metropolitan areas. The rural-to-urban migration in Missouri has continued due to greater employment opportunities, cultural amenities, and perceptions of a higher quality of life in the largest cities in the state. Because many people want to live near—but not in—urban cores, suburbanization has caused the geographic footprint of metropolitan areas to expand so that a majority of the top 15 list consists of St. Louis, Kansas City, and their suburbs.

**Q. Are major cities and suburbs significantly more concentrated than they were in 1950?**

A. Depending on which suburbs are counted as being part of major cities, the concentration of population in major cities has increased since 1950. (Plus, both the Kansas City and St. Louis metropolitan areas include adjacent, out-of-state counties in Kansas and Illinois.) With Kansas City on its western end and St. Louis on the eastern edge, not surprisingly the I-70 corridor contains a large segment of Missouri's population.

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

A. Missouri's population has increasingly concentrated along the I-70 and I-44 corridors, particularly in the sprawling metropolitan counties near Kansas City and St. Louis. Springfield and Columbia are along these transportation lines and benefit from hosting two large state universities. Jefferson City is a rare U.S. state capital city that is not located along an interstate.

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

A. The availability of jobs has been the primary factor. Younger Missourians are also attracted by entertainment, sports, and other cultural opportunities available in the largest metropolitan areas in the state. Rural population growth in Missouri is limited to regions around the state's largest lakes (reservoirs) as retirees, second home owners, and others take advantage of outdoor recreation possibilities. As agriculture became increasingly mechanized after World War II, fewer Missourians were needed to work on farms. As manufacturing jobs left the state from the 1980s onward, fewer blue-collar jobs were available in the state's small towns, also encouraging people to move to urban areas for employment.

## **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 does the population of St. Louis City today compare to 1870? How much larger is St. Louis than the 15th largest city? How concentrated is the population in St. Louis 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:**

Missouri Census Data Center, <http://mcdc.missouri.edu/>.  
Missouri Encyclopedia, <https://missouriencyclopedia.org/>.  
Population.us, <https://population.us/settlement/mo/>.

	City	1870	v		City	1950	v		City	2010	v
	<b>State</b>	<b>1,721,295</b>			<b>State</b>	<b>3,954,653</b>			<b>State</b>	<b>5,988,952</b>	
1	St. Louis	310,864	38.6°N, 90.2°W	1	St. Louis	856,796	38.6°N, 90.2°W	1	Kansas City	476,974	39.1°N, 94.5°W
2	Kansas City	32,269	39.1°N, 94.5°W	2	Kansas City	456,622	39.1°N, 94.5°W	2	St. Louis	314,867	38.6°N, 90.2°W
3	St. Joseph	19,565	39.7°N, 94.8°W	3	St. Joseph	78,588	39.7°N, 94.8°W	3	Springfield	165,785	37.1°N, 93.2°W
4	Hannibal	10,125	39.7°N, 91.3°W	4	Springfield	66,731	37.1°N, 93.2°W	4	Columbia	118,620	38.9°N, 92.3°W
5	St. Charles	5,570	38.7°N, 90.5°W	5	University City	39,892	38.6°N, 90.3°W	5	Independence	117,369	39.0°N, 94.3°W
6	Springfield	5,555	37.1°N, 93.2°W	6	Joplin	38,711	37.0°N, 94.5°W	6	Lee's Summit	95,270	38.9°N, 94.3°W
7	Sedalia	4,560	38.7°N, 93.2°W	7	Independence	36,963	39.0°N, 94.3°W	7	O'Fallon	85,246	38.7°N, 90.7°W
8	Jefferson City	4,420	38.5°N, 92.1°W	8	Columbia	31,974	38.9°N, 92.3°W	8	St. Joseph	76,819	39.7°N, 94.8°W
9	Chillicothe	3,978	39.7°N, 93.5°W	9	Jefferson City	25,099	38.5°N, 92.1°W	9	St. Charles	69,026	38.7°N, 90.5°W
10	Louisiana	3,639	39.4°N, 91.0°W	10	Webster Groves	23,390	38.5°N, 90.3°W	10	St. Peters	56,375	38.7°N, 90.6°W
11	Cape Girardeau	3,585	37.3°N, 89.5°W	11	Cape Girardeau	21,578	37.3°N, 89.5°W	11	Blue Springs	54,036	39.0°N, 94.2°W
12	Boonville	3,506	38.9°N, 92.7°W	12	Hannibal	20,444	39.7°N, 91.3°W	12	Florissant	51,952	38.7°N, 90.3°W
13	Independence	3,184	39.0°N, 94.3°W	13	Sedalia	20,354	38.7°N, 93.2°W	13	Joplin	51,540	37.0°N, 94.5°W
14	Macon	3,078	39.7°N, 92.4°W	14	Kirkwood	18,640	38.5°N, 90.4°W	14	Chesterfield	47,660	38.6°N, 90.5°W
15	Warrensburg	2,945	38.7°N, 93.7°W	15	Clayton	16,035	38.6°N, 90.3°W	15	Jefferson City	43,092	38.5°N, 92.1°W

Source: United States Census.

	<b>City</b>	<b>2020*</b>	√
	<b>State</b>	<b>6,154,913</b>	
1	Kansas City	508,090	
2	St. Louis	301,578	
3	Springfield	169,176	
4	Columbia	126,254	
5	Independence	123,011	
6	Lee's Summit	101,108	
7	O'Fallon	91,316	
8	St. Joseph	72,473	
9	St. Charles	70,493	
10	Blue Springs	58,603	
11	St. Peters	57,732	
12	Florissant	52,533	
13	Joplin	51,762	
14	Chesterfield	49,999	
15	Wentzville	44,372	

\*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>