

ARKANSAS

Giant Traveling Map Lesson

TITLE / AUTHOR: Arkansans on the Move / Stephen O'Connell

Arkansas ACADEMIC STANDARDS / SUITABLE DISCIPLINES:

7th Grade Social Studies – Geography Frameworks:

- CS 1: Students will interpret spatial information using geographic representations. (WST.1.7.1, WST.1.7.3)
- CS 2: Students will analyze the spatial organization of people, places, & environments on Earth's surface. (WST.2.7.2, WST.2.7.3)
- CS 4: Students will apply geographic skills and tools to interpret the past, the present, and plan for the future. (WST.4.7.1)
- CS 5: Students will analyze the demographics and migration of human population and settlement over time. (HS.5.7.2)
- CS 7: Students will analyze patterns and networks of economic interdependence among regions. (HS.7.7.3)
- CS 9: Students will analyze the interactions between humans and the environment. (ES.9.7.1)

Arkansas History Grades 7-8 Frameworks:

- CS 2: Students will analyze ways the geography of Arkansas influenced the development of the state. (G.2.AH.7-8.1, G.2.AH.7-8.2, G.2.AH.7-8.2)

Arkansas History Grades 9-12 Frameworks:

- CS 3: Students will analyze factors that influenced the perspectives of Arkansans from the Civil War through the Gilded Age. (Era3.3.AH.9-12.5)
- CS 3: Students will analyze factors that influenced the perspectives of Arkansans in the early 20th Century. (Era4.4.AH.9-12.2)

OBJECTIVES:

Participants will:

- Learn about major cities in Arkansas 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 Arkansas cities by population for 1870/1940/2010

PREPARATION:

- Discuss reasons why people choose to live in different places
- Review historical settlement patterns in Arkansas
- Review Arkansas era info [review Encyclopedia Arkansas as needed]
- 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.
- 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 Arkansas for the years 1870, 1940, and 2010. They will then look for trends based on the east/west axis and north/south axis, waterways adjacent to and within Arkansas, 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 Arkansas in 1870, 1940, 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 Arkansas 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 (star in the case of Little Rock).
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 1940 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 1940, 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 1940.
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 Major Eras in Arkansas History for contextual information for the time periods highlighted in this lesson.

GUIDING QUESTIONS:

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

A. Water, safety, transportation routes, physical geography, employment

Q. How many of the fifteen largest cities are located along a river or lake in 1870? 1940? 2010?

A.

1870	1940	2010
~10	~7	~4

Q. How many of the cities were in the various regions? Are they spread evenly or grouped together? (Use the graphic on the last page for reference.)

A.

Region	1870	1940	2010
Arkansas River Valley	5	2	2
Coastal Plain	3	4	1
Delta	3	5	3
Ouachita Mountains	2	3	5
Ozark Plateau	2	1	4

Q. For what reasons did this pattern exist?

A. Early cities were located in areas with relatively simple transportation options, along primary navigable rivers (Arkansas, Ouachita, White, etc) or overland mail/stage routes. As technology allowed expansion of resource extraction and agriculture, larger settlements expanded into other areas. Modern cities have clustered near available jobs.

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

A. In 1870, the population of all of Arkansas was 484,471, with the population of the United States at 38,558,371.

	1870	1940	2010
Arkansas	484,471	1,949,387	2,915,918
United States	38,558,371	132,164,569	308,745,538

Q. How many cities in the new top fifteen in 1940 were also in the top fifteen in 1870? What percentage is that?

A. 7, 46.67%

Q. How many cities in the new top fifteen in 2010 were also in the top fifteen in 1870? In 1940?

A. 1870: 5 of 15; 1940: 8 of 15

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

A. Cities are mostly clustered in two areas: Central Arkansas and Northwest Arkansas. Only Texarkana and Jonesboro are not within or satellites of these two regions. The concentration of regional and global connections in these two regions make them far greater draws for employment than less populated areas of the state.

Q. Are major cities and suburbs significantly more concentrated than they were in 1940?

A. Yes. The population of Arkansas has become far more concentrated over time. In 1870, less than 3% of the population lived in the largest city, Little Rock, just over 4% lived in the five largest cities, and just less than 6% lived in the 15 largest cities. In 1940, those values were 4.5%, just under 10%, and 14.6%, respectively. By 2010, more than 6.5% of the state lived in Little Rock, just shy of 17% lived in the top five cities, and over 31% lived in the top 15 cities.

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

A. The areas that once supported large agricultural and resource extraction employment—the Delta and Coastal Plain, respectively—have seen dramatic decreases in overall population over the last century. This accelerated with changes in automation and/or decline in the resources.

Q. Why? 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 Little Rock today than in 1870? How much larger is Little Rock than the 15th largest city? How concentrated is the population in Little Rock 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:

ArcGIS Online base map with related layers: <http://bit.ly/AROnTheMove>

Encyclopedia of Arkansas: <https://encyclopediaofarkansas.net/>

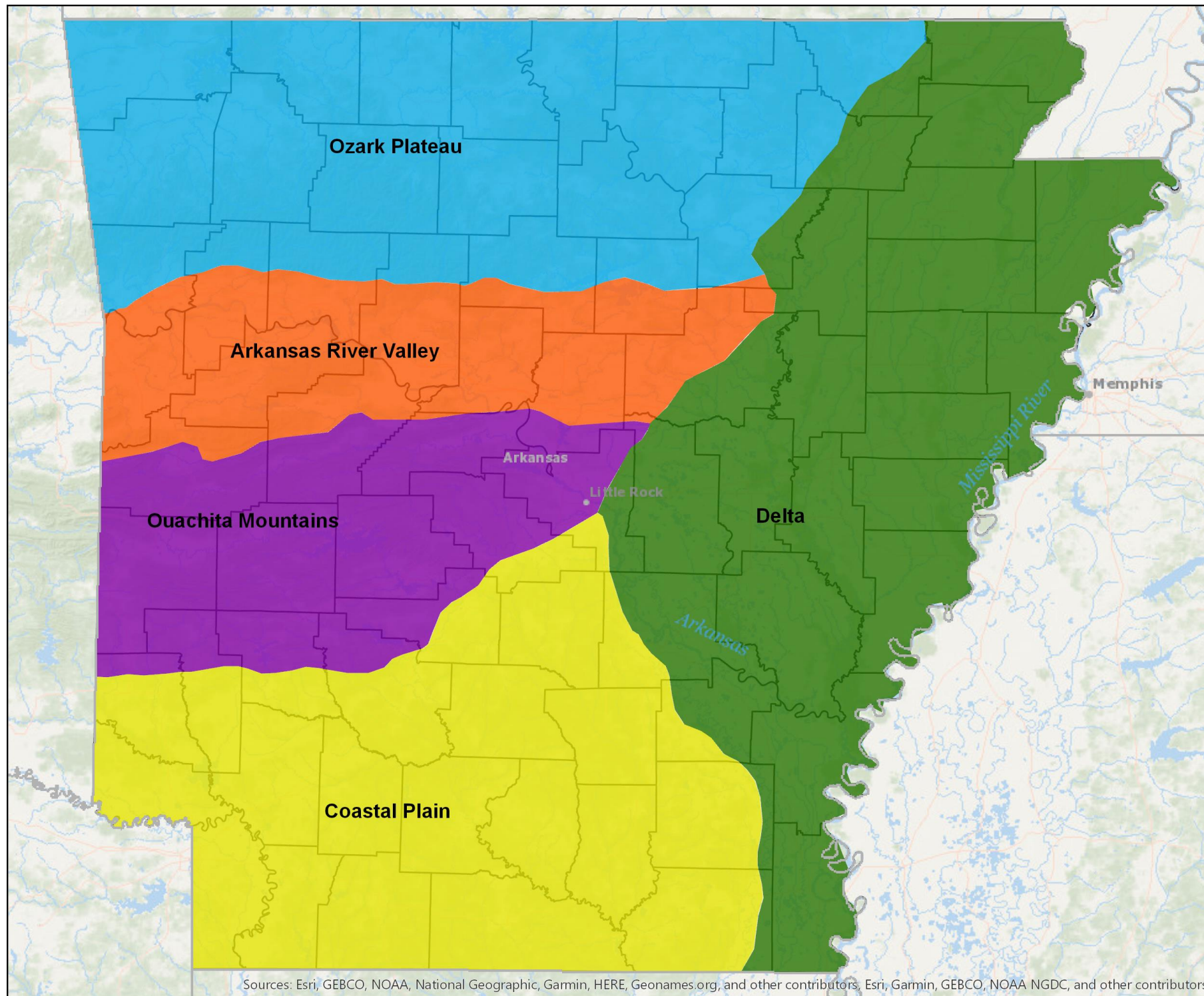
Arkansas Geographic Alliance ArcGIS Online homepage: <https://argeo.maps.arcgis.com>

	City	1870	Lat/Long		City	1940	Lat/Long		City	2010	Lat/Long
	State	484,471			State	1,949,387			State	2,915,918	
1	Little Rock	12,380	34.7 N, 92.3 W	1	Little Rock	88,039	34.7 N, 92.3 W	1	Little Rock	193,524	34.7 N, 92.3 W
2	Helena	2,249	34.5 N, 90.6 W	2	Fort Smith	36,584	35.3 N, 94.3 W	2	Fort Smith	86,209	35.3 N, 94.3 W
3	Fort Smith	2,227	35.3 N, 94.3 W	3	Hot Springs	21,370	34.4 N, 93.0 W	3	Fayetteville	73,580	36.0 N, 94.1 W
4	Pine Bluff	2,081	34.2 N, 92.0 W	4	Pine Bluff	21,290	34.2 N, 92.0 W	4	Springdale	69,797	36.1 N, 94.1 W
5	Camden	1,612	33.5 N, 92.8 W	5	North Little Rock	21,137	34.7 N, 92.2 W	5	Jonesboro	67,263	35.8 N, 90.6 W
6	Hot Springs	1,276	34.4 N, 93.0 W	6	El Dorado	15,858	33.2 N, 92.6 W	6	North Little Rock	62,304	34.7 N, 92.2 W
7	Van Buren	985	35.4 N, 94.3 W	7	Texarkana	11,821	33.4 N, 94.0 W	7	Conway	58,908	35.0 N, 92.4 W
8	Fayetteville	955	36.0 N, 94.1 W	8	Jonesboro	11,729	35.8 N, 90.6 W	8	Rogers	55,964	36.3 N, 94.1 W
9	Arkadelphia	948	34.1 N, 93.0 W	9	Blytheville	10,652	35.9 N, 89.9 W	9	Pine Bluff	49,083	34.2 N, 92.0 W
10	Dardanelle	926	35.2 N, 93.1 W	10	Camden	8,975	33.5 N, 92.8 W	10	Bentonville	35,301	36.3 N, 94.2 W
11	Batesville	881	35.7 N, 91.6 W	11	Helena	8,546	34.5 N, 90.6 W	11	Hot Springs	35,193	34.4 N, 93.0 W
12	Searcy	874	35.2 N, 91.7 W	12	Fayetteville	8,212	36.0 N, 94.1 W	12	Benton	30,681	34.5 N, 92.5 W
13	Jacksonport	769	35.6 N, 91.3 W	13	Hope	7,475	33.6 N, 93.5 W	13	Texarkana	29,919	33.4 N, 94.0 W
14	Clarksville	466	35.4 N, 93.4 W	14	Paragould	7,079	36.0 N, 90.5 W	14	Sherwood	29,523	34.8 N, 92.2 W
15	Magnolia	259	33.2 N, 93.2 W	15	Russellville	5,927	35.2 N, 93.1 W	15	Jacksonville	28,364	34.8 N, 92.1 W

	City	2020*	Lat/Long
	Arkansas	3,011,524	
1	Little Rock	202,591	34.7 N, 92.3 W
2	Fayetteville	93,949	36.0 N, 94.1 W
3	Fort Smith	89,142	35.3 N, 94.3 W
4	Springdale	84,161	36.1 N, 94.1 W
5	Jonesboro	78,576	35.8 N, 90.6 W
6	Rogers	69,908	36.3 N, 94.1 W
7	North Little Rock	64,591	34.7 N, 92.2 W
8	Conway	64,134	35.0 N, 92.4 W
9	Bentonville	54,164	36.3 N, 94.2 W
10	Pine Bluff	41,253	34.2 N, 92.0 W
11	Hot Springs	37,930	34.4 N, 93.0 W
12	Benton	35,014	34.5 N, 92.5 W
13	Sherwood	32,731	34.8 N, 92.2 W
14	Bella Vista	30,104	36.5 N, 94.3 W
15	Paragould	29,537	36.1 N, 90.5 W

*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>



Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors. Esri, Garmin, GEBCO, NOAA NGDC, and other contributors