

Colorado

Giant Traveling Map Lesson

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COLORADO ACADEMIC STANDARDS / SUITABLE DISCIPLINES:

- Social Studies, Geography: Fourth Grade Standard 2, Grade Level Expectation 1: Answer questions about Colorado regions using maps and other geographic tools (DOK 1-2)
- Social Studies, Geography: Fourth Grade Standard 2, Grade Level Expectation 2: Describe how the physical environment provides opportunities for and places constraints on human activities (DOK 1-2); Analyze how people use geographic factors in creating settlements and have adapted to and modified the local physical environment (DOK 1-3)
- Social Studies, History: Fourth Grade Standard 1, Grade Level Expectation 1: Explain the cause-and-effect relationships in the interactions among people and cultures that have lived in or migrated to Colorado (DOK 1-2)
- Social Studies, History: Fourth Grade Standard 1, Grade Level Expectation 2: Describe the impact of various technological developments. Topics to include but not limited to the state of Colorado, including changes in mining technology; changes in transportation; early 20th century industrial changes; and mid- to late 20th century nuclear and computer technological changes (DOK 1-2)
- Social Studies, Economics: Fourth Grade Standard 3, Grade Level Expectation 1: Give examples of the kinds of goods and services produced in Colorado in different historical periods and their connection to economic incentives (DOK 1-3)
- Social Studies, Civics: Fourth Grade Standard 4, Grade Level Expectation 1: Give examples of issues faced by the state and develop possible solutions (DOK 1-3)

OBJECTIVES:

Students will:

- Learn about major cities in Colorado 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, 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 (red or fluorescent)
- 15 tall cones (blue-striped or multi-colored)
- 15 shorter, flexible cones (orange with dots or see-through)
- List of Colorado cities by population for 1890/1930/2010 (some cities are not on the map and will need to be found by using latitude and longitude lines at the sides of the map – attached)

PREPARATION:

- Discussion about the reasons why people choose to live in different places
- Review of historical settlement patterns in Colorado
- Development of predictions by students about where they think people might live

RULES:

- Shoes are not allowed on the map. Please have students 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, students will locate the fifteen most populous cities in Colorado for the years 1890, 1930, and 2010. They will then look for trends based on the east/west axis and north/south axis, speculating about the factors that contributed to populations shifting along the Front Range.

On the map:

1. Provide students with an overview about exploring the top fifteen populated places in Colorado in 1890, 1930, and 2010 using U.S. Census data as a source of information.
2. Ask students about the kinds of jobs they imagine people were doing in Colorado in 1890. Ask them to predict where people might be living.
3. Take 15 of the round markers. Pass them out to 15 of the students (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 students and asking the students to place the marker on the dot identifying the town (star in the case of Denver).
5. Remind the students that they can provide assistance to their classmates 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 students to interpret the new information that has been added to the map. (None of the largest cities in 1890 are on the Eastern Plains, lots of people live in the mountains because of the mining jobs available there, population clusters around Pueblo where the Colorado Fuel and Iron Company is located, Greeley might be a large city because of farms nearby).

7. Move on to the 1930 census and ask students what jobs people were doing then. Ask them to predict where people might be living.
8. Pass out the 15 larger cones. Assign individuals students to place their cones on the 15 cities. For cities in the top 15 in 1890 and 1930, have students pick up the red marker and place it on top of the cone.
9. After the larger cones are all on the map, repeat Item 6 above, asking them to think about what has changed and why. (Not much to dig out of the earth, farming was pretty good on the Eastern Plains in the 1920s, Colorado Fuel and Iron still a major employer, more growth along the Front Range.) Ask how many cities that were in the top 15 in 1890 are in the top 15 in 1930. (8, is that more or less than half of 15?)
10. Repeat process with 2010 census data and smaller or flexible orange cones. Have students 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 in the top 15 only in 1930.
11. Remind students that 85% of the people in Colorado live along the Front Range today, but 80% of the water is on the Western Slope. This is also an opportunity to review the concentration of people in the state in terms of electoral districts.

NOTES:

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

Ask participants:

Q. How many of the fifteen largest cities were east of the Front Range?

A. Eight

Q. How many of the cities were west of the Front Range?

A. Seven

Q. For what reasons did this pattern exist?

A. The lands on the Eastern Plains originally belonged to Arapaho, Apache, and Ute tribes who hunted buffalo and traded. As the name suggests, the land is relatively flat, but rises from the lowest point (3,337 feet where the Arikaree River flows into the northwest corner of Kansas) to 7,500 feet east of the Denver basin. Most of the land now is used for farming. The lands on the Western Slope are west of the Continental Divide. These originally lands belonged to the Ute Native American tribe; Colorado hosts two reservations. The land is suitable for some ranching and farming, but the economy is mostly dependent on energy extraction and tourism because of the mountainous terrain.

Q. What was the demographic make-up of the population?

A. According to the 1930 Census, the percentage of males was 51%; in 1910 it was 54% (no information is available for 1890). The racial and ethnic make-up was reported as 98% white in 1890 and 1910, and 93% white in 1930. Only 24% reported being born in the state in 1890; in 1930 that rose to almost 35%. In 1890, the density of the population was 4 persons per square mile.

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

A. In 1890, the population of all of Colorado was 413,249. That was a 112.7% increase over the population in 1880. During the same decade, the population of the United States increased by 25.5%.

After adding cones from the 1930 Census, ask students to consider how many of the new top fifteen largest cities are east of the Front Range and how many of the cities are west of the Front Range?

Q. How many cities in the new top fifteen in 1930 were also in the top fifteen in 1890?

A. Eight: Denver, Pueblo, Colorado Springs, Trinidad, Boulder, Greeley, Grand Junction, and Canon City

Q. Is eight more or less than half of fifteen?

A. Just slightly more.

Q. How many cities in the new top fifteen in 2010 were also in the top fifteen in 1890?

A. Six: Denver, Pueblo, Colorado Springs, Boulder, Greeley, and Grand Junction

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

A. People want to be near Denver, but not live in the city.

Q. Are Denver and suburbs are significantly more concentrated than they were in 1890?

A. Depending on which suburbs are counted as being part of Denver, the concentration of population in Denver is similar to what it was in 1890.

Conclusion

Tell participants that the total population of the fifteen largest cities in 1890 was approximately 186,714 and that the total of the top fifteen cities in 2010 is nearly 2,568,889.

Now ask participants:

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

A. Away from the plains and the mountains and toward the cities.

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

A. Resources such as minerals and timber have been depleted. The proportion of people involved in agricultural production has decreased significantly. There are generally better and more varied educational opportunities and employment prospects in cities.

MODIFICATIONS:

For younger students, focus on the map key and compass rose. For older students, 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 Denver today than in 1890? How much larger is Denver than the 15th largest city? How concentrated is the population in Denver over time? How did the population of your city change?

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.

City	1890	v	City	1930	v	City	2010	v
State	413,249		State	1,035,791		State	5,029,196	
Denver	106713		Denver	237861		Denver	600158	
Pueblo	24558		Pueblo	50086		Colorado Springs	416427	
Colorado Springs	11140		Colorado Springs	33237		Aurora	325078	
Leadville	10384		Greeley	12203		Fort Collins	143986	
Trinidad	5523		Fort Collins	11489		Lakewood	142980	39.7 N 105.1 W
Aspen	5108		Trinidad	11372		Thornton	118772	
Boulder	3330		Boulder	11233		Pueblo	106595	
Canon City	2825		Grand Junction	10247		Arvada	106433	
Durango	2726		Englewood	7980	39.6 N, 104.9 W	Westminster	106114	
Salida	2585		Sterling	7195		Centennial	100377	39.6 N, 104.9 W
Ouray	2534	38.0 N, 107.6 W	La Junta	7193		Boulder	97385	
Central City	2480	39.8 N, 105.5 W	Longmont	6029		Greeley	92889	
Greeley	2395		Canon City	5938		Longmont	86270	
Golden	2383	39.7 N, 105.2 W	Loveland	5506		Loveland	66859	
Grand Junction	2030		Walsenburg	5503		Grand Junction	58566	
Fort Collins	2011		Durango	5400		Englewood	30255	
Georgetown	1927		Alamosa	5107		Golden	18867	
Colorado City (Old)	1788		Salida	5065		Durango	16887	
Longmont	1543		Leadville	3771		Canon City	16400	
						Sterling	14853	
						Trinidad	9096	
						Aspen	6658	
						Salida	5236	
						Walsenburg	3068	
						Leadville	2602	
						Ouray	1000	
						Central City	663	

Source: United States Census

