

# MONTANA

## Giant Traveling Map Lesson

**TITLE / AUTHOR:** Montanans on the Move / Author

**Montana ACADEMIC STANDARDS / SUITABLE DISCIPLINES:**

**Content Standard 2—Students analyze how people create and change structures of power, authority, and governance to understand the operation of government and to demonstrate civic responsibility.**

GRADE 8

2. identify and describe basic features of the political system in the United States and identify representative leaders from various levels (e.g., local, state, tribal, federal, branches of government).
4. analyze and explain governmental mechanisms used to meet the needs of citizens, manage conflict, and establish order and security.

GRADE 12

1. analyze the historical and contemporary purpose of government and how the powers of government are acquired, modified, justified and used (e.g., checks and balances, Bill of Rights, court decisions).
6. analyze and evaluate conditions, actions and motivations that contribute to conflict and cooperation within and among groups and nations (e.g., current events from newspapers, magazines, television).
7. analyze laws and policies governing technology and evaluate the ethical issues and the impacts of technology on society.

**Content Standard 3—Students apply geographic knowledge and skills (e.g., location, place, human/environment interactions, movement, and regions).**

GRADE 4

3. describe and illustrate ways in which people interact with their physical environment (e.g., land use, location of communities, methods of construction, design of shelters).
4. describe how human movement and settlement patterns reflect the wants and needs of diverse cultures.

GRADE 8

7. describe major changes in a local area that have been caused by human beings (e.g., a new highway, fire, construction of a new dam, logging, mining) and analyze the probable effects on the community and environment.

GRADE 12

4. analyze how human settlement patterns create cooperation and conflict which influence the division and control of the earth (e.g., treaties, economics, exploration, borders, religion, exploitation, water rights)
5. select and apply appropriate geographic resources to analyze the interaction of physical and human systems (e.g., cultural patterns, demographics, unequal global distribution of resources) and their impact on environmental and societal changes.

**OBJECTIVES:**

Participants will:

- Learn about major cities in Montana 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 Montana cities by population for 1890/1930/2010

**PREPARATION:**

- Discuss reasons why people choose to live in different places
- Review historical settlement patterns in Montana
- Review Montana era info [SOURCE]
- 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 Montana for the years 1890, 1930, and 2010. They will then look for trends based on the east/west axis and north/south axis, waterways adjacent to and within Montana, 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 Montana in 1890, 1930, 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 Montana in 1890. 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 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 Helena).
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 1930 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 1890 and 1930, 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 1930.
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 Montana 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

**Q. How many of the fifteen largest cities are located along a river or lake in 1890? 1930? 2010?**

A.

| 1890 | 1930 | 2010 |
|------|------|------|
| 7    | 6    | 6    |

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

A.

| 1890   | 1930   | 2010  |
|--|--|---|
| Northwest: 2<br>Southwest: 8<br>North: 1<br>Middle: 1<br>East: 3 | Southwest: 4<br>Middle: 6<br>South: 3<br>East: 2 | Northwest: 2<br>Southwest: 9<br>North: 1<br>East: 3 |

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

A. Transportation opportunities, employment opportunities, access to resources in major cities.

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

A Consider how much the population of Montana increased compared to the increase in the United States over these time periods. What percentage of the United States population lives in Montana?

|               | 1890       | 1930        | 2010        |
|---------------|------------|-------------|-------------|
| Montana       | 142,924    | 535,606     | 989,415     |
| United States | 62,979,766 | 123,202,624 | 308,745,538 |

**Q. How many cities in the new top fifteen in 1930 were also in the top fifteen in 1890? What percentage is that?**

A. 8, 53%

**Q. How many cities in the new top fifteen in 2010 were also in the top fifteen in 1890? In 1930?**

A. 1890: 8 of 15, 53%; 1930: 11 of 15, 73%

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

A. Near the middle and southern part of the state due to resources and access to jobs, as well as highway access.

**Q. Are major cities and suburbs significantly more concentrated than they were in 1930?**

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 1930.

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

A. Most of the cities that started large grew larger. Expansion into smaller cities surrounding areas of interest and fractured large cities into several smaller ones.

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

A. Jobs.

## **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 Billings today than in 1890? How much larger is Billings than the 15th largest city? How concentrated is the population in Billings 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:**

Montana Office of Public Instruction

<http://opi.mt.gov/Educators/Teaching-Learning/K-12-Content-Standards-Revision>

Montana Historical Society, <https://mhs.mt.gov/>

|    | City           | 1890    | v |    | City        | 1930    | v |    | City                | 2010    | v |
|----|----------------|---------|---|----|-------------|---------|---|----|---------------------|---------|---|
|    | State          | 142,924 |   |    | State       | 535,606 |   |    | State               | 989,415 |   |
| 1  | Helena         | 13,834  |   | 1  | Butte       | 39,532  |   | 1  | Billings            | 109,550 |   |
| 2  | Butte          | 10,723  |   | 2  | Great Falls | 28,822  |   | 2  | Missoula            | 74,428  |   |
| 3  | Missoula       | 5,433   |   | 3  | Billings    | 16,380  |   | 3  | Great Falls         | 58,701  |   |
| 4  | Great Falls    | 4,750   |   | 4  | Missoula    | 14,657  |   | 4  | Bozeman             | 48,532  |   |
| 5  | Livingston     | 2,850   |   | 5  | Anaconda    | 12,494  |   | 5  | Butte-Silver Bow    | 34,514  |   |
| 6  | Bozeman        | 2,790   |   | 6  | Helena City | 11,803  |   | 6  | Helena              | 32,315  |   |
| 7  | Cedar Township | 1,546   |   | 7  | Miles City  | 7,176   |   | 7  | Kalispell           | 23,938  |   |
| 8  | Marysville     | 1,489   |   | 8  | Bozeman     | 6,855   |   | 8  | Havre               | 9,715   |   |
| 9  | Deer Lodge     | 1,463   |   | 9  | Havre       | 6,372   |   | 9  | Anaconda-Deer Lodge | 9,131   |   |
| 10 | Granite        | 1,310   |   | 10 | Livingston  | 6,361   |   | 10 | Helena Valley       | 8,622   |   |
| 11 | Thompson       | 1,143   |   | 11 | Kalispell   | 6,094   |   | 11 | Miles City          | 8,393   |   |
| 12 | Meaderville    | 1,075   |   | 12 | Lewistown   | 5,358   |   | 12 | Belgrade            | 8,026   |   |
| 13 | Phillipsburg   | 1,058   |   | 13 | Glendive    | 4,629   |   | 13 | Evergreen           | 7,552   |   |
| 14 | Dillion        | 1,012   |   | 14 | Deer Lodge  | 3,510   |   | 14 | Lockwood            | 7,503   |   |
| 15 | Miles City     | 956     |   | 15 | Roundup     | 3,026   |   | 15 | Livingston          | 7,294   |   |

|    | <b>City</b>                   | <b>2020*</b>     | √ |
|----|-------------------------------|------------------|---|
|    | <b>State</b>                  | <b>1,084,225</b> |   |
| 1  | Billings                      | 117,116          |   |
| 2  | Missoula                      | 73,489           |   |
| 3  | Great Falls                   | 60,442           |   |
| 4  | Bozeman                       | 53,293           |   |
| 5  | Butte-Silver Bow              | 34,494           |   |
| 6  | Helena                        | 32,091           |   |
| 7  | Kalispell                     | 24,558           |   |
| 8  | Belgrade                      | 10,460           |   |
| 9  | Anaconda-Deer<br>Lodge County | 9,421            |   |
| 10 | Havre                         | 9,362            |   |
| 11 | Helena Valley South-<br>east  | 9,168            |   |
| 12 | Helena Valley West<br>Central | 8,670            |   |
| 13 | Miles City                    | 8,354            |   |
| 14 | Evergreen                     | 8,149            |   |
| 15 | Livingston                    | 8,040            |   |

\*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>

