

RESOURCE LIBRARY

ACTIVITY : 1 HR 40 MINS

Mental Mapping and Perception

Students rate their desire to live in different states. They use mental maps to explore student perceptions of different areas of the U.S.

GRADES

5 - 12+

SUBJECTS*Geography***CONTENTS**

3 PDFs

OVERVIEW

Students rate their desire to live in different states. They use mental maps to explore student perceptions of different areas of the U.S.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/mental-mapping-and-perception/>

DIRECTIONS

Ideally, this activity will take place over the course of two days or two 50-minute sessions.

DAY/SESSION 1

1. Examine students' perceptions of foreign places.

Have students discuss their mental images of other places in the world beyond U.S. borders. Project the provided Three-Column Chart and list the name of a foreign country in the first column. Ask: *What images or words come to mind for this place?* Students may name cities, products, or people, or they may share adjectives. Write their ideas in the second column. Then ask students if these images are positive, negative, or a mix, and write the label in the third column. Ask: *Is this a place where you might want to live? Why or why not?*

Follow the same process for three or four more countries. You can take examples from students or provide place names. Ask: *What mental pictures come to mind at the mention of Canada, China, Germany, Japan, Mexico, and Nigeria?*

Discuss the differences in the images of places. Ask:

- *How do you think you've developed these perceptions?*
- *How many of you have images based on personal experience or a family connection?*
- *Which countries do you know of from a movie or television or book?*
- *How else do we develop perceptions of places?*

Explain that our perceptions of places can change throughout our lives. These perceptions are part of our mental maps of the world. Usually our mental maps of places close to home are the most realistic.

2. Explain the process for the research task.

Explain that next students will explore their mental maps of the United States. Each student has a different mental map of the U.S., but they will be looking at the patterns between their mental maps. This will involve three steps:

- Researching this question: *Where in the United States do students in the class most want to live (other than where they live now)?*
- Collecting and organizing data
- Analyzing the data using maps

Give each student a copy of the worksheet *Where Would You Like to Live?* and a United States Map. Have students rank the states and the District of Columbia using the scale at the top of the worksheet. Explain how to use the ranking scale.

- 1 - would never want to live there

- 5 - would really like to live there
- 3 - do not have strong feelings either way (neutral)

On this scale, a “2” would be “probably would not want to live there” and “4” would be “might want to live there.” Have each student complete the worksheet, using the U.S. map for reference if needed.

3. Have each student map his or her own preferences.

Have each student create a map using their Where Would You Like to Live? worksheet ratings. Explain that they will be creating a choropleth map, where colors represent different data values. Before they start, determine a color gradation as a class, ideally from light for the lowest-rated states to dark for the highest-rated states. This should result in an easy-to-read map. Have students color each state with the appropriate color on the United States Map. Have them title their map “[Name]’s State Preference Map.”

4. Discuss students’ personal perceptions.

Have a whole-class discussion about the maps. Ask:

- *Why would you like to live in the states that you rated highly?*
- *How did you decide that certain states are undesirable?*
- *Do any regions of the U.S. stand out as preferable or not preferable? Why do you suppose those regional patterns developed?*
- *Did you rate states that neighbor yours more highly than more distant states? Why or why not?*
- *What experience or information affected your decisions? (Possible responses may include previous travel, books, television programs, movies, sports teams, location of friends or relatives, and conversations with adults.)*
- *What kinds of additional information about each state would help you make a more informed decision about where you would like to live?*
- *Do you think you might eventually move to one of the states you rated a “5”?*
- *What are some forces that “push” people out of a home state? (Possible responses may include lack of work or the need for safety.)*

- *What are some “pull” factors that attract people to other states? (Possible responses may include different weather, a new job opportunity, or a different lifestyle.)*

5. Have students summarize their state preference map.

Collect students’ completed worksheets. On a separate sheet of paper, have each student use their map to write a summary of their perceptions of states and regions in the United States. Have them write about the effects on their perceptions and additional information about states that would be useful for decisions about places, and staple this to their individual map; they will use this again in Steps 7 and 8.

DAY/SESSION 2

6. Have students create a class preference map.

Before class, use students’ completed worksheets from Day/Session 1 to calculate the average ranking. To do this, add each student’s rankings for each state, then divide by the total number of students. If possible, provide a list of the states in order of preference.

Give students a clean copy of the United States Map. Have students title it “Class Preference Map.” Have them review the data and use the same color ranges they used for their individual maps. This will allow them to compare and contrast their maps with the class map in Step 8.

Have another whole-class discussion about the class’ preferences while analyzing the map.

Ask:

- *Which states were rated high? Which were rated low? Were preferences for California, Colorado, and Florida high or low? Why?*
- *Identify regions that have similar preference values. What reasons can you give for these similarities?*
- *What patterns, if any, are evident on the map? How do you explain them? What generalizations can be made about the patterns?*
- *What factors affect the development of mental maps? For which states do you think media and advertisements have made a difference in perceptions?*

- *Do you think the patterns on the map would be different if the rankings were done only by males? Only females? People out of work? Senior citizens? People with serious health threats, like cancer?*
- *What effect do you see for distance related to residential preference and mental images of places?*

7. Have students compare and contrast the class map and their individual map.

Have students use the individual map from Step 3. Have them work in small groups to compare and contrast their individual maps with the class map and then report out as part of a whole-class discussion. Ask: *What similarities do you see in your individual mental maps and the combined class map? What differences do you see?*

One insight that can come from this is that it is possible that there will be a wide split in the class about a certain state, but averaging the data would make it appear that the whole class had a similar middle perspective.

8. Have students summarize their findings.

Have each student summarize in writing the class preference map and discussion. Summaries should describe both findings and conclusions and use examples from the maps, rankings, and calculations as needed. Summaries should include the following:

- Their summary from Day/Session 1
- Analysis of the class preference map
- Analysis of similarities and differences between their map and the class preference map
- An explanation of generally how choices were made for high and low preferences
- Examples of how personal values and different types of information are reflected in decisions about where to live
- Factors that affect the development of perceptions about places and regions, and what might cause those perceptions to change

Tip

If it appears that students' mental maps are based on biased or unreliable data, have them research their top-rated and lowest-rated states to see if their impressions hold up.

Tip

In Step 6, you may want to produce the class preference map on an overhead transparency using marking pens so that the entire class can see it. It can also be produced using the [United States Tabletop Map](#) for display on a bulletin board.

Tip

To further challenge students, arrange for classes in other places of the U.S. to do this project too. Have each class work together to create one summary for their class findings. Exchange quantitative results and summaries of results, and then have a video conference to discuss the findings.

Informal Assessment

Assess students' written summaries. A well-written summary will include:

- reasons and clarification for choosing different areas of the U.S. in which to live
- the criteria used for ranking the states, such as warm temperatures, variety of activities, good schools, beautiful scenery, well-paying jobs, or too many cold months or not much job variety
- a comparison of individual and class preferences
- An explanation of factors that have affected their perceptions, and what might cause those preferences to change

Extending the Learning

- **U.S. History Connection** Connect this activity to perceptions held about different regions of the country associated with different historical events. This approach can help students to understand that people in the past held perceptions of other places that were very similar to the perceptions students hold of the same places today. Guide students in making connections to:
 - Perceptions of America that were held by Europeans coming to the colonies
 - Perceptions of the West by eastern people during western migration
 - Perceptions of the North by blacks living under Jim Crow laws

- Perceptions of Northerners by Southerners, and of Southerners by Northerners during and after the Civil War
- Have students do a similar project for countries of the world using the [MapMaker 1-Page World Map](#). Have them each select 10 countries where they would like to live and 10 countries where they would not want to live. Ask students to map the class' responses and identify the patterns that emerge for countries, regions, and continents. Consider having them map 10 countries they'd be interested in learning more about as well. Ask: *How do your perceptions of foreign countries differ from perceptions of the United States?*
- Tell students they have been hired by their community's Chamber of Commerce to help attract workers for a new plant that is being built. Have students work in small groups to determine aspects of their community that might make people want to relocate there. Have students create and present a multimedia commercial or brochure to attract new residents. To evaluate, have the class determine whether each effort was successful in making the community appealing to potential residents.

OBJECTIVES

Subjects & Disciplines

Geography

Learning Objectives

Students will:

- use mental mapping to define their perceptions of U.S. states
- analyze their own geographic perceptions and the perceptions of others
- identify regional differences in perceptions

Teaching Approach

- Learning-for-use

Teaching Methods

- Information organization
- Visual instruction

Skills Summary

This activity targets the following skills:

- 21st Century Student Outcomes
 - Learning and Innovation Skills
 - Communication and Collaboration
 - Critical Thinking and Problem Solving
- Critical Thinking Skills
 - Analyzing
 - Evaluating
- Geographic Skills
 - Acquiring Geographic Information
 - Analyzing Geographic Information
 - Organizing Geographic Information

National Standards, Principles, and Practices

NATIONAL GEOGRAPHY STANDARDS

- **Standard 1:**

How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

- **Standard 18:**

How to apply geography to interpret the present and plan for the future.

- **Standard 2:**

How to use mental maps to organize information about people, places, and environments in a spatial context

COMMON CORE STATE STANDARDS FOR ENGLISH LANGUAGE ARTS & LITERACY

- **Speaking and Listening Standards K-5:**

Comprehension and Collaboration, SL.5.1

• **Writing Standards K-5:**

Text Types and Purposes, W.5.2

THE COLLEGE, CAREER & CIVIC LIFE (C3) FRAMEWORK FOR SOCIAL STUDIES STATE STANDARDS

• **Geographic Representations: Spatial Views of the World: D2.Geo.1.6-8:**

Construct maps to represent and explain the spatial patterns of cultural and environmental characteristics.

Preparation

What You'll Need

MATERIALS YOU PROVIDE

- Calculators
- Colored pencils
- Paper
- Atlases (1 per student or 1 per pair)
- Pencils, pens

REQUIRED TECHNOLOGY

- Internet Access: Required
- Tech Setup: 1 computer per classroom, 1 computer per pair, Projector

PHYSICAL SPACE

- Classroom

GROUPING

- Large-group instruction

OTHER NOTES

Ideally, this activity will take place over the course of two days or two 50-minute sessions.

BACKGROUND & VOCABULARY

Background Information

All of us have images of different regions of the world that we have developed through a variety of processes. These processes are usually a mix of factual data, incomplete information, and personal bias or subconscious prejudices. This activity explores mental images and how mental images combine to form mental maps. No one has a totally accurate image of the world, so there is no completely accurate mental map. People's mental maps of their own immediate environments tend to be more realistic than those of places they've never visited.

People form impressions and images of their physical surroundings—even places they have never been. These impressions are what geographers call mental maps. Mental maps are ever-changing summaries of spatial knowledge and serve as indicators of how well people know the spatial characteristics of places. Mental, or cognitive, maps display personal knowledge of features and spatial relationships, as well as perceptions and attitudes regarding a place.

Understanding the way people view different regions can help experts understand and predict how the land may be used and can give other information, such as what patterns of migration, tourism, and other engagement with places may be expected.

Prior Knowledge

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Recommended Prior Activities

- [Important Places in Your Community](#)

Vocabulary

Term	Part of Speech	Definition
choropleth map	noun	representation of statistical data, such as population, over a specific area using colors or patterns to represent types or intensity of data.

Term	Part of Speech	Definition
location	<i>noun</i>	position of a particular point on the surface of the Earth.
map skills	<i>noun</i>	skills for reading and interpreting maps, from learning basic map conventions to analyzing and comprehending maps to address higher-order goals.
mental map	<i>noun</i>	an internal representation of a person's personal perceptions, knowledge, and thoughts about a geographic area.
pattern	<i>noun</i>	arrangement of people, places, or things across a specific space.
perception	<i>noun</i>	the way that you notice or understand something using one of your senses.
pull factor	<i>noun</i>	force that draws people to immigrate to a place.
push factor	<i>noun</i>	force that drives people away from a place.
region	<i>noun</i>	any area on Earth with one or more common characteristics. Regions are the basic units of geography.
state	<i>noun</i>	political unit in a nation, such as the United States, Mexico, or Australia.

For Further Exploration

Maps

- [Mind Map Art](#)

Websites

- [National Geography Standard 2: Mental Maps](#)

