



Giant Map of Oregon

—
Activities for using
the Giant Map of

Center for Geography Education in Oregon

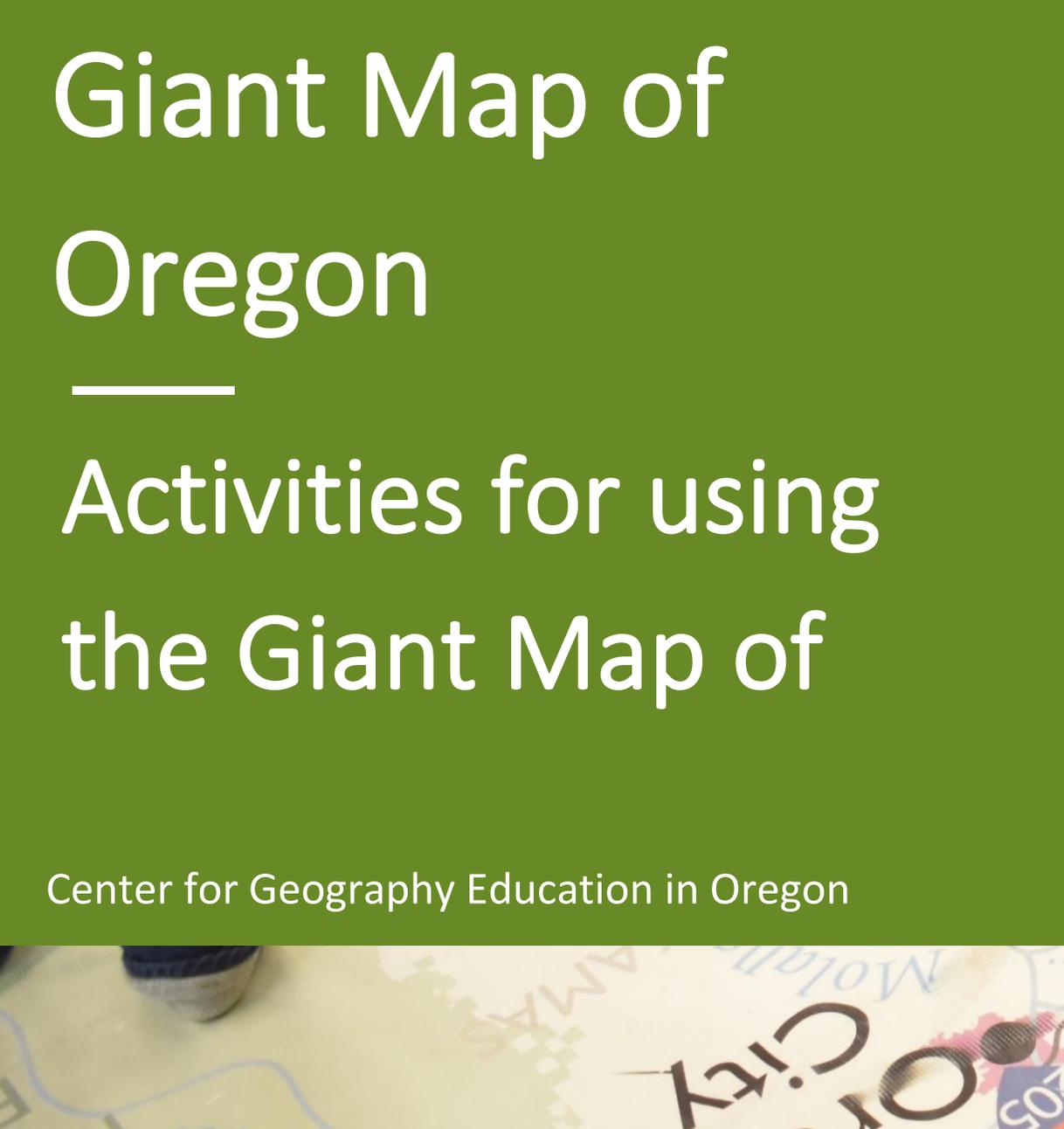


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Policy for Use of Oregon Giant Map

C-GEO has several Giant Maps. When you request a map, we will try to reserve the Giant Map closest to your location (usually PSU, WOU or Central Oregon).

Charge for using the Giant Map:

The person who requests the Giant Map is responsible for picking it up and returning it to the same place, **properly packed** in the re-useable container.

For C-GEO TCs, there is no fee.

For educators who are not TCs, the use fee is \$25 payable to "**Portland State University**," due when the map is picked up.

NOTE: When a teacher requests the Giant Map, C-GEO will confirm the reservation of the map with an email, copied to the teacher's principal or supervisor.

If the map is not returned by the due date, C-GEO will contact the principal, to request the immediate return of the map. If the map is not received, the school or organization will be invoiced for the cost of the map (\$3,000).

Borrowers of any C-GEO Giant Map must complete a survey upon completion of use. Find the link at <https://www.surveymonkey.com/r/H9JJHP8>

Do's and Don'ts While Using the Giant Map

1. Make sure you have a large enough area to lay out the map. It is 18' x 20' feet!
2. Remove all shoes before walking on the map!
3. Make sure that the map is clean before you roll or fold it up. This is especially important if you used the map on the playground or on the grass.
4. When you are finished, fold or roll the map the way it was when you borrowed it.
5. Cover the map with the material provided. Secure it with the straps, if they were provided, or return to trunk (this will depend on which version of the map you borrowed).
6. Return the map on time

The Giant Map is expensive and we want to make sure that it will be available to students for as long as possible. Following the instructions above will cut down on the map's wear and tear.

Activities

1. Comparing Your Mental Map with the Giant Map
2. Ecoregions
3. Farm Products of Oregon
4. Wildlife Habitats
5. Tour Guides
6. Stump the Audience
7. Measure up
8. The Water Cycle: The Play
9. 45th Parallel: Simon Says
10. Can you Spell Locations in Oregon?
11. Trails Across Oregon
12. Twenty Questions
13. Dam Maps
14. Watersheds

1. Comparing Your Mental Map with the Giant Map

Before participants see the Giant Map, give them a blank outline map of Oregon (available on the C-GEO website) and ask them to draw their mental map of the state. Ask them to put down as much information as they know about the physical and cultural geography features of the state such as roads, mountains, cities, etc. Then spread out the Giant Map.

1. Ask students to compare the mental maps they drew to the Giant Map, and then answer the questions below.
2. Students can work in pairs or small groups to compare their maps to each other's and to the Giant Map.
3. As a follow-up activity, collect all the original maps and have students draw their mental map once again. They can compare their first mental map with the second.

Questions:

1. What information or features were included on both your mental map and the Giant Map?
2. What information or features are on your map but not the Giant Map?

3. What information or features are on the Giant Map but not your map?
4. Why do you think there are differences between your mental map and the Giant Map?
5. What's the most important feature that you omitted (left off) your mental map? Explain why this feature was important.

2. Ecoregions

1. Discuss the definition of the term ecoregions.
2. Use the map from the *Student Atlas of Oregon* (page 14), to see where the nine ecoregions of Oregon are located.
3. Using the Giant Map, have students locate themselves on each ecoregion as you call out the names. As students get more knowledgeable about places in Oregon give them clues to locate the ecoregions rather than telling them where they are located.

3. Farm Products of Oregon

1. Assign each person one of the following farm products produced in Oregon: Onions, Potatoes, Grapes, Apples, Cherries, Pears, Milk Cows
2. Ask students to look at the Farm Products Map on pages 43 and 44 of the *Student Atlas of Oregon* and find where the assigned product is produced.
3. On the blank map of Oregon provided, tell them to mark in the location(s) of their product and provide a key.
4. Ask them to look at the following maps to see what kinds of conditions
5. seem best suited for the production of their assigned product (make notes on the outline map):
 - Topography (p. 15)
 - Average Annual January Temperature (p. 19)
 - Average Annual January Temperature (p. 20)
 - Average Annual Precipitation (p.21)

Instructions:

When you arrive at the Giant Map of Oregon, stand (without shoes!) at the location or your assigned product. Be prepared to share your findings with the group.

Questions:

1. What relationships, if any, are there between major transportation routes (page 45), population concentrations (page 38) and your product?
2. How might climate changes in Oregon impact your product and its location?

4. Wildlife Habitats

1. Assign each person one of the following wildlife species – Black Bear, Western Rattlesnake, Spotted Owl, Bald Eagle, American Beaver, Pronghorn, Elk, and Red-legged Frog
2. Look at the Wildlife Distribution Map on page 28 of the *Student Atlas of Oregon* and find your assigned species' habitat.
3. On the blank map of Oregon provided mark in the location(s) of your wildlife species and provide a key.
4. Look at the following maps to see what kinds of conditions seem best suited for your wildlife species (make notes on your outline map):
 - Ecoregions (p.14)
 - Topography (p. 15)
 - Average Annual January Temperature (p. 19)
 - Average Annual January Temperature (p. 20)
 - Average Annual Precipitation (p.21)
 - Vegetation Zones (p. 23)
 - Forests (p.24)

What type of physical environment (habitat) do your assigned species need?

Instructions:

When you arrive at the Giant Map of Oregon, stand (without shoes!) at the location or your assigned product. Be prepared to share your findings with the group.

Question:

How might climate changes in Oregon impact your species and its location?

5. Tour Guides

1. Divide the class into groups of two or three.
2. Give each group a picture of a place in Oregon and have them find the place on the map. After consulting various maps in the atlas (for example, topography, precipitation, or forest lands) to learn about their location
3. Ask each group to guide a “tour” of their location.

6. Stump the Audience (Two options)

Option A:

1. Using the atlas, assign each small group a “product” of Oregon and play “Stump the Audience” game. For example, if a group is assigned “pears”, they give the rest of the class clues for where pears are raised without saying the word “pear”. Examples of clues for “pear” could be Columbia Gorge, used for preserves, grows on trees, also found in Southern Oregon.
2. When the first person thinks they know the product, have that person “travel” to the area where the product is raised and point to it in the atlas. Caution: It can get a bit crazy if you have competitive folks!

Option B:

1. Give five clues for a location in Oregon and allow about two minutes for students to search for the location using the clues.
2. After the two minutes are up, the class can help students who have not yet found their locations by providing additional clues. Then have the students read their clues and check to see if they found the correct location.

7. Measure Up

There’s a lot of math in geography. One way to illustrate that is to have students complete (individually or in small groups) the following map activities using the Giant Map or Student Atlas of Oregon:

Use foot length, or hand span, to measure distances between places. Match the results with the scale at the bottom of the map.

1. How many steps does it take to go 100 miles? (Note that answers will vary according to the size of the step. One way to do this is to take several step readings and use the mean).
2. Find highways that will add up to 100, use the combination of +,-,X and divide to get to the number 33 (Oregon is the 33rd state added to the US).
3. How many miles is it from place X to place Y 'as the crow flies'? How many miles is it if you follow the road? (Use yarn to measure the distance following the roads). How are they different and why?

8. The Water Cycle: The Play

1. After studying the water cycle and its elements in Oregon, assign roles or characters involved in the Water Cycle (the sun, Westerly Winds, Coast Range and Cascade Mountains, Willamette Valley, etc.) to students. For example, the Westerly Winds should be off the west coast. (Check the photo on the front of this manual for a possible layout.)
2. Have students locate assigned roles on the map and discuss the step-by-step action of the water cycle/play. Lights, Camera, Action - Have students act their parts in the play, "The Water Cycle".

9. The 45th Parallel-Simon Says

1. Have students line up on the 45th parallel on the giant map. Discuss what the parallel represents.
2. Find major Oregon cities located on the parallel. Play "Simon Says" to move students across the map from the 45th parallel (Example: Simon says to take 2 baby steps north, take 1 giant leap south, Simon says go west until I say stop.)

10: Can You Spell Locations of Oregon?

1. Give students locations in the state that are on the Giant Map in a "jumbled" format and challenge them to find the location.
2. Ask students to write a paragraph that will tell others how to get to that location from their school.

11. Trails Across Oregon

1. On the giant map, walk the Oregon Trail, Meek's Cut off, Barlow Trail, Siskiyou Trail, and Applegate Trail.
2. Have students research these trails and create a poster that shows the trail and gives information about the trail, including information from the *Student Atlas of Oregon*.

12. Twenty Questions

1. Put a picture of an Oregon location on the students' backs without the students knowing what those locations are.
2. Students then ask other students questions about the location on their backs. The questions can only be answered by saying, "yes", "no", "north", "south", "east", or "west".

13. Dam Maps: Are there dams on the Giant Map?

1. Have a student research reasons for dams. Ask them to count the number of dams shown on the map "Oregon Dams". This can be found on page 33 of the *Student Atlas of Oregon*.
2. Using the Giant Map, put students into small groups and assign each group a river. Ask them to arrange themselves on the map along their assigned river, wherever possible, on the spot where a dam is located.
3. Discuss different types of dams represented, their locations, and their possible functions (flood control, storage, and hydropower, etc.). Brainstorm advantages and drawbacks of dams.

14. Watersheds

1. Watersheds are often a difficult concept for younger students to grasp. Before using the Giant Map, make sure that students understand what a watershed is. One suggestion is to have a water master come in and discuss watersheds and show students the boundaries of the watershed in which their school is located.

2. Using the giant map, have students identify other watersheds in the state. Ask students to complete a worksheet that would include questions in which watersheds key Oregon cities are located.

Lesson Plans

The Oregon Boundary Train

(See PowerPoint of images along with descriptions)

Overview

In this lesson, students will use the Giant Map and pictures to enhance their mental map of Oregon's boundaries and important physical and human features. Students will do this by boarding the 'Oregon Boundary Train' and traveling along the borders of Oregon, passing by several important physical and human features shown on the Giant Map. Through discussions, students will develop a mental map of the exact and relative location of physical and human features of Oregon.

Subject

Geography

Grade level

2nd- 4th Grade

State Content Standards

1. SS.05.GE.02 Examine and understand how to prepare maps, charts, and other visual representation to locate places and interpret geographic information.
2. SS.05.GE.02.01 Use maps and charts to interpret geographic information
3. SS.05.GE.02 Use other visual representations to locate, identify, and distinguish physical and human features of places and regions

Connection to National Geography Standards

Standard 2: How to use mental maps to organize information about people, places, and environments.

Objectives

After using discussion and movement to travel around the giant map of Oregon, students will be able to:

1. Create a mental map of Oregon
2. Compare their mental map to the giant map of Oregon
3. Evaluate the similarities and differences between the two

Materials

1. Paper, pencil, ruler, etc. to draw a mental map
2. Oregon Giant Map

Suggested Time

Approximately 30-45 minutes

Background information

Mental maps are simply the maps of various places that we store in our head. Mental maps are used to help us navigate through space. They also help us organize information about the world, see relationships between places. For example, a good mental map of South Asia can help us understand why China would be concerned about the conflict between India and Pakistan over Kashmir, or why heavy industry in the U.S. Great Lakes contributes to acid deposition in the Canadian city of Toronto. Having a good mental map is more than just academic. Mental maps can ensure that you arrive on time (or even early!) and they can ensure your safety (e.g. finding your way out of a burning building, for example). Mental maps are personal, and their accuracy can vary considerably from person to person, but they can be improved by actively assessing one's mental map, and by comparing it to "reality."

Directions

1. In the classroom away from the Giant Map, explain what a mental map is to students.
2. Provide students with a blank sheet of paper (and have extra sheets available for students who “mess up”), and tell them to draw their own mental map of Oregon.
3. They should include as much detail as possible, but remind them that there is no right or wrong mental map – it is just based on what they know.
4. Remind students not to worry about their drawing abilities (although they should try to be as neat as possible).
5. Give students as much time as needed to complete their maps (most will finish in about 10-15 minutes).
6. Move to the Giant Map. Assign several students physical and human features to stand on the map in the correct spot. Students will have a picture and one or two facts about the location. They will be the local feature travel guide.
7. *Instruct the rest of the students to make a line and get on board ‘The Oregon Boundary Train’. As the line moves around the boundaries discuss the directions you are moving the shapes the boundaries make and the physical and human features they pass. The assigned student feature guides will name the place and share a fact about the place. *Discussion ensues about the exact and relative location of those features on the Oregon map;
8. Ask students to compare their mental maps and the Giant Map and answer the questions below.
9. Students could work in pairs or small groups to compare their maps to each other’s and to the giant map.
10. As a follow-up activity, you can collect all the maps, and have students draw their mental map once again to see if any change occurred.

Questions

1. What information or features were included on both your mental map and the Giant Map?
2. What information or features are on your map but not the Giant Map?
3. What information or features are on the Giant Map but not your map?
4. Why do you think there are differences between your mental map and the Giant Map?
5. What's the most important feature that you omitted (left off) your mental map? Explain why this feature was important.
6. If you have students compare their maps in groups: explain how your map compares to your classmates' mental maps. Why do you think these differences exist?

Assessment

The formative assessment will be teacher observation of student participation in discussions and critical analyses. The summative assessment will be the map of Oregon that they create.

Map Elements:

- Title
- Easy to understand key/legend
- The map is visually appealing, neat, and easy to read
- An appropriate number (number based on grade level) of landmarks have been correctly labeled on the map

Adaptations

This is a good vocabulary lesson for ELL students or students who are new to Oregon. Students become very familiar with the layout and the geographic features of Oregon.

Extensions

1. Students create a travel brochure of tourists

2. Students plan a family vacation in Oregon incorporating the various Oregon landmarks
3. Choose a physical or human feature found on the map and create a poster with illustrations and information to inform the reader of Oregon's physical and human features

Lesson Plan Author: **Shirley Lomax**, Center for Geography Education in Oregon inspired by a lesson from **Gillian Acheson**, Texas Geographic Alliance

Salmon from the Pacific Ocean traveled up the Columbia River and into the Snake River.



Pendleton is a city famous for its big rodeo and woolen mills.



Bend is a city that has almost 300 days of sun and lots of recreation. It is between the Cascade Mountains and a desert.



Crater Lake lies inside an old volcano. It was created when Mount Mazama collapsed 7,700 years ago following a large eruption.



Hart Mountain Antelope Refuge
is 65 miles northeast of
Lakeview. It has pronghorn
antelope, California bighorn
sheep, mule deer,
sage grouse, and redband trout.



Salem is located in the
Willamette Valley.
It is the capital city of Oregon.



There are sand dunes in Coos
Bay. It is a large port city.



The high canyon rims along the Owyhee River are habitat for mountain lion, bobcat, Mule Deer, California Bighorn Sheep, and a large variety of raptors



©David Jensen

Portland is the 26th largest city in the United States. It is near the meeting spot of the Willamette and Columbia Rivers.



Where's My Niche?

Overview

In this lesson, students will learn about where some familiar Oregon wildlife can be found and what their distribution is throughout Oregon. Students will do this by first defining a niche, sketching their animal and its footprint and then locating them on a Giant Map of Oregon. In discussion, students will analyze the relationship of an animal's niche to other animals and hypothesize how physical layout of Oregon affects the wildlife distribution.

Subject

Geography and Science

Grade level

2nd -5th Grade

State Content Standards

1. SS.05.GE.02 Examine and understand how to prepare maps, charts, and other visual representation to locate places and interpret geographic information.
2. SS.05.GE.02.01 Use maps and charts to interpret geographic information
3. SS.05.GE.02 Use other visual representations to locate, identify, and distinguish physical and human features of places and regions

Objectives

1. After viewing several different maps from the *Student Atlas of Oregon*, students will be able to label the nine Ecoregions on a blank outline Ecoregion map of Oregon.
2. After class discussion and map activities, students will be able to locate one or more animal niches, identify the basic boundaries and characteristics of the niche.

Materials

1. From the *Student Atlas of Oregon*, copies of the following maps for each student:
 - Wildlife Distribution
 - Ecoregions
2. Animal Name cards—Using a list of animals listed on the Wildlife Distribution Map
3. Color pictures of the animals listed to post around the room
4. Pencils, colored pens, markers, drawing paper

Presentation Steps

1. Ask students to think of where they live. What things are found there that make it comfortable and safe for them to live there?
2. Work with students to identify what a niche is.
3. Instruct students to get into pairs. Have each pair draw an animal name card. Instruct students to go to the picture where their animal is shown and draw a sketch of that animal. You might also have students look in the atlas to draw the footprint they might look for if they were searching for this animal.
4. Prepare students to find their animals on a map where there are no tracks and use other clues to find their animals. Discuss with students what clues they use on a map to locate something. (*relative location, latitudes, and longitude, landmarks, etc.*) Using the handheld copy of the “Wildlife Distribution Map” have students move to the Giant Map to place themselves on the Giant Map where their assigned animal might be found. Discuss with the students what methods they used to find the niche for their animal.
5. Using the student Ecoregions map and the clues shown on the Giant Map, brainstorm the characteristics of the various niches. Ask students to talk with their partner about what their animal would need to survive in this place (Brainstorm 3-5 things).
6. Ask students some scenario questions, e.g.,

- What would happen if a pronghorn was moved to the southern coast?
 - Why don't we find red-legged frogs in the desert?
7. Invite the students to look at the Wildlife Distribution Maps and think of similar questions to share with the class.
 8. Have students look at the Ecoregions of Oregon Map. Ask partners to:
 - Name another animal found in Oregon
 - Tell which ecoregion it would be found
 - Give one reason why it would be found there.

Assessment

Students should be assessed formatively and summative. The formative assessment will be teacher observation of student participation in discussions and critical analyses.

For the summative assessment give students a blank map of the Ecoregions of Oregon ask them to use a word bank and locate the various regions. Then ask students to color in the niche of their animal. Encourage them to color in -three to four more animals' niches. On the back of the map, students should list two or more characteristics of each niche identified.

Possible scoring suggestions for the summative assessment:

1. Accuracy of locating a niche
2. Number of animals identified
3. The thoroughness of niche characteristics
4. Accuracy of niche characteristics
5. Completion of map-TOADS=T(Title) O (orientation-compass rose)A (author)D (date)S(symbols-key)

Adaptations

This is also a good vocabulary lesson for ELL students or students who are new to Oregon.

1. Niche regions
2. Valley
3. Foothills

4. Mountains
5. Plateau
6. Basin range

Partners are a good way for students to learn from one another and develop map use techniques and confidence.

Extensions

Pass out the Climographs and Average Annual Precipitation maps. Have students examine these maps and charts and their own maps of Oregon. Ask them to discuss and form conclusions about how the physical layout and weather of the state affects Oregon's wildlife distribution.

Have students answer questions, such as the following:

1. Why is the Willamette Valley so wet?
2. Why does eastern Oregon have a different climate pattern from western Oregon?
3. How do the mountain ranges affect the climate and weather of Oregon?
4. Students may work in partners and then report back to the class for a large group discussion.