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# Model Lessons to Use With The Student Atlas of Oregon

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## Authors

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## Introduction to the Basic Physical Features of Oregon

### Overview:

Students will learn to locate and label features on an Oregon map using verbal clues. This lesson follows previous lessons that taught “following verbal clues.” This lesson will extend those skills to locate and label features on a map.

### Geographic Question:

How are students able to use verbal clues to locate places or other features on a map?

### Connection with Curriculum:

Learning Level (K-2) Geography

### Objectives:

Students will follow verbal directions to find these features on a map:

- Three mountain ranges: Cascade Range, Coast Range, Blue Mountains
- Crater Lake
- Four rivers: Snake, Columbia, Willamette, and Deschutes
- The Pacific Ocean
- Three cities: Portland, Salem, and their own city

Students will label each feature with a specified color and symbol.

Students will paste magazine pictures, which represent these features, on a large classroom wall map of Oregon.

### National Geography Standards:

**#1:** How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

### Oregon Geography Standards:

**K.7.** Identify and compare and contrast pictures, maps, and globes.

**K.11.** Use terms related to location, direction, and distance (e.g. over/under, here/there, left/right, above/below, forward/backward, between).

**1.10.** Locate and identify important places in the community (school, library, fire department, etc.).

**2.10.** Use and apply cardinal directions; locate and identify physical and human features on maps (e.g. oceans, cities, continents).

### English Language Proficiency Standards for ELD:

*Explaining* - Students will learn to develop and use explanations using appropriate verb forms, declarative and complex sentences and adverbs of manner.

### Language Objectives:

*Function:* Explaining

*Form:* Declarative sentences

Beginning - Not Applicable

Intermediate - \_\_\_\_\_ (base form of verb) \_\_\_\_\_ (adverb).

*Drive through the Cascades in winter carefully.*

Advanced - \_\_\_\_\_ (base form of verb) \_\_\_\_\_ (adverb), and \_\_\_\_\_.

*Drive through the Cascades in winter carefully, and carry chains.*

### Targeted Language Skills:

*Reading:* Students will review maps from the Student Atlas.

*Writing:* Students will label a blank outline map of Oregon.

*Speaking:* Students will participate in class discussions on maps.

*Listening:* Students will follow verbal clues to color features on a map.

**Vocabulary:** Provide pictures or some way to teach \* items.

symbol*	mountain	title*
globe*	north*	city
river	south*	
ocean	east*	
lake	west*	

### Materials:

- *Student Atlas of Oregon:* <http://studentatlasoforegon.pdx.edu/>
- Copy the following maps (see below) and assemble into a packet for each student or, if your class has access to them, use hard copies of the *Student Atlas of Oregon*. Hard copies can be purchased from [http://geog.pdx.edu/oga/oga/Hard\\_copy\\_order\\_form.doc](http://geog.pdx.edu/oga/oga/Hard_copy_order_form.doc)
- *General Reference Map*
- *Ecoregions Map* - This map shows the mountain ranges in easy-to-read colored sections.
- *Topography Map*
- *Rivers and Lakes Map*
- Overhead transparencies of these maps (adapt to overlay and adjust size ratio on copier)
- A student map consisting of an 8 ½ X 11 inch outline map of Oregon. Create the map by using the *Rivers and Lakes* map from the *Student Atlas of Oregon*. Add symbols for the cities and mountain ranges you will discuss and remove any undesired rivers or lakes using a corrective fluid.
- Outline maps of Oregon can be found at: <http://geog.pdx.edu/oga/> Consider adding bordering states, the Pacific Ocean, and continuing the Snake River through Washington.
- Create a large blank outline map of Oregon using the 'Rivers and Lakes' map in the *Student Atlas of Oregon*. Create a transparency of a blank outline map of Oregon. Project it onto a large piece of butcher paper and trace it. Add features used in the lesson and glue on student-selected features.

- Pictures of rivers, lakes, oceans, mountains and cities cut from magazines
- Glue
- Scissors
- Crayons
- Pencils

## **Presentation Steps:**

### **Introduction**

1. Pre-Teach vocabulary by displaying vocabulary words (post words around the classroom) and asking students to place a picture next to the word that their picture identifies.
2. Using the maps from the *Student Atlas of Oregon*, as well as the large classroom map, the following concepts from previous lessons will be reviewed:
  - Each map has a title
  - Each map has the four directions noted: N, S, E, W
  - Rivers, lakes, cities, mountains, and the Pacific Ocean will be identified through teacher direction
3. Using the *Student Atlas of Oregon*, explore the following maps:
  - *General Reference Map*
  - *Ecoregions Map* (This map will show the mountain ranges in easy-to-read colored sections)
  - *Topography Map*
  - *Rivers and Lakes Map*

### **Activity One – Day One:**

1. Students will be given the student map. Students will be instructed to:
  - Underline title
  - Circle the four rivers discussed: Deschutes, Willamette, Columbia, Snake
  - Draw a rectangle around Crater Lake
  - Draw an X on each mountain range: Blue, Cascades, Coast Range
  - Draw wavy lines in the Pacific Ocean
  - Draw a triangle around each of the three cities discussed: Portland, Salem, your own city
2. On the large map of Oregon displayed in the classroom, the teacher or selected students will label the map with the appropriate symbol when each feature is discussed.
3. Another activity while looking at the maps: Ask students to “Put your finger on...?” (Name rivers, lake, mountains, cities, ocean)
4. Questions to be asked during map exploration:
  - What do you notice about the location of these rivers? (The Snake and Columbia Rivers form the borders of Oregon, while the Willamette and Deschutes Rivers are inside of Oregon.)
  - Why do you think the dots for cities are different sizes?
  - Looking at the map, can you tell me what this is called? (Looking at Pacific Ocean). Or, hand out words or pictures and play, “Who has the word for....?”

- What do you notice about the similarities and differences of these maps?
5. Next, students will be asked to follow directions to color the following on their maps:
    - Mountains (brown)
    - Crater Lake, Rivers, Ocean (different shades of blue)
    - Cities (black)

### **Activity Two – Day Two:**

1. The large classroom map and the features labeled on it will be reviewed.
2. Students will be assigned to one of these five groups:
  - Rivers
  - Lakes
  - Oceans
  - Cities
  - Mountains
3. Provide a selection of pictures for the students to use that represent their feature. These pictures will then be glued to the large wall map to create a physical features map collage.
4. After the pictures are glued, students will review the characteristics of each feature.

### **Assessment:**

Self evaluation about how well students labeled maps and followed directions (see attached).

Evaluation of students' completed individual maps and class map (i.e. Did features get labeled with the right color? Did students select appropriate pictures to represent their land feature?).

Teacher observation of student work and attention to directions.

### **Extensions:**

Create cookies using an Oregon-shaped cookie cutter from [www.coppergifts.com](http://www.coppergifts.com) and add candy to represent different features.

Use a blank map for students to label all features, instead of just coloring them.

Add more features, such as more major cities or rivers, or have students choose different features to add.

Use the *Topographical Map* in the *Student Atlas of Oregon* and have students explore the concept of elevation. Compare and contrast different elevations of Oregon.

Original Authors: Jane Bennett and Marilyn Soares

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.

## Student Self Evaluation

Name: \_\_\_\_\_

1. I underlined the title of each map.		
2. I drew a circle around all of the rivers.		
3. I drew a rectangle around Crater Lake.		
4. I drew an X around each mountain range.		
5. I drew wavy lines in the Pacific Ocean.		
6. I drew a triangle around each city.		
7. I colored the mountains brown.		
8. I colored Crater Lake blue.		
9. I colored the rivers blue.		
10. I colored the Pacific Ocean blue.		
11. I colored the cities black.		
Day 2		
12. I found pictures for the large wall map.		
13. I glued my pictures to the large wall map.		
14. I was a good listener.		

## Auto evaluación del estudiante

Nombre: \_\_\_\_\_

1. He subrayado el título de cada mapa.		
2. He circulado los ríos.		
3. He dibujado un rectángulo alrededor de Crater Lake.		
4. He dibujado una X en cada región de montaña.		
5. He dibujado una línea ondulada en el Océano Pacífico.		
6. He dibujado un triángulo alrededor de cada ciudad.		
7. He coloreado café a las montañas.		
8. He coloreado azul a Crater Lake.		
9. He coloreado azul a los ríos.		
10. He coloreado azul al Océano Pacífico.		
11. He coloreado negro a las ciudades.		
Día 2		
12. He encontrado fotos para el mapa grande de la pared.		
13. He pegado las fotos en el mapa grande de la pared.		
14. He escuchado con atención.		





## Latitude and Longitude of Oregon

### Overview:

In this lesson, students look at the relationship of latitude and longitude within Oregon. Students examine the general latitude and longitude locations of cities, towns and major landmarks in the state. Latitude and longitude can be difficult for students of all ages to grasp and this lesson helps simplify it by focusing on Oregon. Students relate the concept of latitude and longitude with familiar surroundings.

### Geographic Questions:

What are latitude and longitude?

How do we use latitude and longitude to locate places in Oregon?

### Connection with Curriculum:

Learning Level (3-8) Geography/Social Studies

### Objectives:

- Using *Student Atlas of Oregon* maps, students will be able to find locations on a map when given the latitude and longitude, as well as find the latitude and longitude of a given location on the map.
- Students will understand the relationship between latitude and longitude and be able to find locations using them.
- Students will be able to write latitude and longitude coordinates for a given location.

### National Geography Standards:

**#1** - How to use maps and other geographic representations, geospatial technologies, and spatial thinking understand and communicate information.

**#3** - How to analyze the spatial organization of people, places, and environments on Earth's surface.

### Oregon Geography Content Standards:

**3.7:** Use a simple grid system, symbols, and other information to locate the physical and political features of places on maps and globes.

**4.8:** Use geographical tools (e.g. maps, GIS, Google Earth) to identify absolute and relative location and physical characteristics of places in Oregon.

### English Language Proficiency Standards for ELD:

*Hypothesizing and Speculating-* Students learn to hypothesize and speculate using modals and compound tenses.

### Language Objectives:

*Function:* Hypothesizing and Speculating

*Form:* Future tense and Modals

*Beginning:* Not Applicable

*Intermediate:* \_\_\_\_\_ will/shall \_\_\_\_\_.

*Advanced:* \_\_\_\_\_ may/might/could/can \_\_\_\_\_.

**Targeted Language Skills:**

*Reading:* The students will be able to read the latitude and longitude of a given location.

*Writing:* Students will write the city name of a given location.

*Listening:* Students will follow along as the teacher is guiding them through the first section of the worksheet.

*Speaking:* Students will actively participate in a classroom discussion on the importance of latitude and longitude.

**Vocabulary:**

latitude	east	distance
longitude	west	direction
coordinate	scale	landmarks
north	equator	Prime Meridian
south		

**Materials:**

*Student Atlas of Oregon* <http://studentatlasoforegon.pdx.edu>

Worksheets 1-3, attached at the end of the lesson printed for each student

Pencil

Projector

For extra support in understanding vocabulary and Cartesian Grids, see the following websites:

[http://www.blevinsenterprises.com/Battleship\\_Rules\\_for\\_Vocab.pdf](http://www.blevinsenterprises.com/Battleship_Rules_for_Vocab.pdf)

[http://www.hemetusd.k12.ca.us/edserv/cur\\_inst/elem\\_resource/cur/oc/2/la/elc/u1/voc.pdf](http://www.hemetusd.k12.ca.us/edserv/cur_inst/elem_resource/cur/oc/2/la/elc/u1/voc.pdf)

**Presentation Steps:**

1. Ask the questions:

- How do pilots know where to land when they take off?
- How do ship captains navigate?

Explain that pilots and ship captains use coordinates. This should lead to a discussion on the importance of latitude and longitude.

2. Use “Latitude and Longitude Lines” maps in the *Student Atlas of Oregon* to explain the coordinate system. Identify key lines of latitude (Equator, etc.) and longitude (Prime Meridian). Ask students if they have seen the signs that mark the 45<sup>th</sup> parallel (line of latitude)? In Oregon, these signs are located along:

- I-5 (near Keizer)
- I-84 (near Baker City)
- Hwy 101 (near Lincoln City)

When you cross this line, you are halfway between the North Pole and the equator. Show students that Salem’s coordinates are Lat. 45N and Long. 123W, which is easy to remember if latitude and longitude is switched: 12345.

3. Teacher demonstrates an example of one set of coordinates using the Latitude and Longitude map. Next, have the students work as a class (or in cooperative groups or partners) to find places on the map using coordinates. This should be done using a projector or overhead so all the students can watch and learn together.

4. Give students a map of Oregon and Worksheets 1 and 2 which provide latitude and longitude coordinates for Oregon cities. Ask the students to locate each city on the map using the coordinates. Once they have found a city, tell them to write down its name next to each set of coordinates.

5. After students have completed step four, give them a blank map of Oregon and Worksheet 3 which lists Oregon landmarks and their coordinates. Ask students to locate and label each landmark on the blank map of Oregon.

**Assessment:**

Use the worksheets provided at the end of the lesson to assess students' knowledge. The *Latitude and Longitude Map*, provided, does not have exact decimal places and the degree of accuracy required will vary according to students' abilities and age.

**Extensions:**

- This activity could be used to help students with graphing in math.
- As an optional assessment, set up a classroom mapping game with coordinates. Put a grid on the floor and ask students to stand on specific coordinates. As you call out coordinates, "Who is latitude \_\_\_\_ and longitude \_\_\_\_?" have students call out the name of the person standing on that coordinate.

**Bibliography:**

White, Carl. *You Can Find It!*, <http://www.col-ed.org/cur/sst/sst133.txt>  
<http://realestate3d.com/gps/latlong.htm> (helped with longitude and latitude worksheet).

Original Authors: Zack James, Robert Wegner, and Misty Connor.  
The final editing and adaptations, for an ELL classroom, were completed by the  
OGA Spanish Student Atlas of Oregon Task Force, 2011.

## Worksheet 1

<b>Latitude</b>	<b>Longitude</b>	
46.15	123.88	Astoria,OR
44.83	117.82	Baker,OR
44.05	121.31	Bend, OR
43.60	118.95	Burns,OR
44.12	123.22	Eugene,OR
42.18	120.35	Lake View,OR
42.37	122.87	Medford,OR
44.63	124.05	Newport,OR
44.02	117.02	Ontario,OR
45.68	118.85	Pendleton,OR
45.60	122.60	Portland,OR
44.92	123.00	Salem,OR
45.62	121.15	The Dalles,OR

**Worksheet 2**

	<b>Latitude</b>	<b>Longitude</b>
Astoria,OR	_____	_____
Baker,OR	_____	_____
Bend, OR	_____	_____
Burns,OR	_____	_____
Eugene,OR	_____	_____
Lake View,OR	_____	_____
Medford,OR	_____	_____
Newport,OR	_____	_____
Ontario,OR	_____	_____
Pendleton,OR	_____	_____
Portland,OR	_____	_____
Salem,OR	_____	_____
The Dalles,OR	_____	_____

### Worksheet 3

*Find and plot the following locations on your blank map of Oregon.*

1. Crater Lake National Park

*Latitude: 42.93. N:      Longitude: 122.12 W*

2. Oregon Caves National Monument

*Latitude: 42.14. N      Longitude: 123.62 W*

3. Mt. Hood

*Latitude: 45.22. N      Longitude: 121.42 W*

4. Bonneville Dam

*Latitude: 45.38. N      Longitude: 121.57 W*

5. John Day Fossil Beds National Monument

*Latitude: 44.69. N      Longitude: 119.58 W*

6. Newberry National Volcanic Monument

*Latitude: 43.69. N      Longitude: 121.25 W*

7. Klamath Lake

*Latitude: 42.39. N      Longitude: 121.88 W*

8. Malheur Lake

*Latitude: 43.07. N      Longitude: 118.85 W*

## Hoja de trabajo 1

<b>Latitud</b>	<b>Longitud</b>	
46.15	123.88	Astoria,OR
44.83	117.82	Baker,OR
44.05	121.31	Bend, OR
43.60	118.95	Burns,OR
44.12	123.22	Eugene,OR
42.18	120.35	Lake View,OR
42.37	122.87	Medford,OR
44.63	124.05	Newport,OR
44.02	117.02	Ontario,OR
45.68	118.85	Pendleton,OR
45.60	122.60	Portland,OR
44.92	123.00	Salem,OR
45.62	121.15	The Dalles,OR



**Hoja de trabajo 2**

	<b>Latitud</b>	<b>Longitud</b>
Astoria,OR	_____	_____
Baker,OR	_____	_____
Bend, OR	_____	_____
Burns,OR	_____	_____
Eugene,OR	_____	_____
Lake View,OR	_____	_____
Medford,OR	_____	_____
Newport,OR	_____	_____
Ontario,OR	_____	_____
Pendleton,OR	_____	_____
Portland,OR	_____	_____
Salem,OR	_____	_____
The Dalles,OR	_____	_____

### **Hoja de trabajo 3**

*Encuentra y marca las siguientes localidades en el mapa en blanco de Oregón.*

1. Crater Lake Parque Nacional

*Latitud: 42.93. N      Longitud: 122.12 O*

2. Cuevas de Oregón Monumento Nacional

*Latitud: 42.14. N      Longitud: 123.62 O*

3. Mt. Hood

*Latitud: 45.22. N      Longitud: 121.42 O*

4. Bonneville Dam (Presa)

*Latitud: 45.38. N      Longitud: 121.57 O*

5. John Day Fossil Beds (yacimiento de fósiles) Monumento Nacional

*Latitud: 44.69. N      Longitud: 119.58 O*

6. Newberry Monumento Volcánico Nacional

*Latitud: 43.69. N      Longitud: 121.25 O*

7. Klamath Lake (Lago)

*Latitud: 42.39. N      Longitud: 121.88 O*

8. Malheur Lake (Lago)

*Latitud: 43.07. N      Longitud: 118.85 O*



## My Oregon Road Trip: A Mapping Unit

### Overview:

The objective of this unit is to introduce and familiarize students with various maps of Oregon. Students will analyze, interpret and gather information from various maps in order to create their own map of Oregon. It also incorporates reading and writing content standards.

**Geographic Question:** How do you use maps to find information and create new maps?

### Time Frame:

This unit will take approximately 1-2 weeks, depending on the length of class periods and the desired amount of time for students to work on the project.

### Connection with the Curriculum:

Learning Level (5-9) Geography

**Objectives:** By the end of the unit, the students will:

- Know more about Oregon's geography
- Understand some of the different types of maps
- Be able to use an atlas with different types of maps to find information
- Create a map of Oregon, describing specific features
- Write journal entries describing an imagined road trip through Oregon

### National Geography Standards:

**#1** - How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

**#4** - The physical and human characteristics of places.

### Oregon Geography Standards:

**4.8.** Use geographical tools (e.g. maps, GIS, Google Earth) to identify absolute and relative locations and physical characteristics of places in Oregon.

**5.8.** Use various types of maps to describe and explain the United States.

**6.11.** Distinguish among different types of maps and use them to analyze an issue in the Western Hemisphere.

**6.12.** Collect and analyze data to describe regions of the Western Hemisphere.

### English Language Proficiency Standards for ELD:

*Describing Location* - Students learn to understand and generate oral and written language with prepositional phrases.

### Language Objectives:

*Function:* Describing Location

*Form:* Prepositional Phrases

*Beginning* - \_\_\_\_\_ is/are (prepositional phrase).

*Intermediate* - \_\_\_\_\_ is/are (prepositional phrase).

*Advanced* - There are \_\_\_\_\_ within/beneath/above \_\_\_\_\_.

## Targeted Language Skills:

*Reading:* Technical reading of the maps and students' road trip journals.

*Writing:* Writing the vocabulary with definitions and pictures, the journals, and technical writing of the maps.

*Speaking:* Brainstorming what they already know about Oregon, sharing vocabulary and definitions, sharing reports to whole group.

*Listening:* Listening sheets with the four areas for speaking: Delivery, Organization, Ideas and Content, and Word Choice. Students who are listening to the reports write three facts about the report and evaluate the four criteria for speaking as identified by the state.

## Vocabulary:

### Day 1:

cartographer  
aerial photograph  
reference map  
thematic map  
spatial  
latitude  
longitude  
scale

### Day 3:

ecoregions  
border  
annual crops  
natural disasters  
precipitation  
counties  
dams  
population

## Materials List:

- Online version of *Student Atlas of Oregon* website [HYPERLINK](https://www.pdx.edu/geography-education/instructional-materials-0)  
<https://www.pdx.edu/geography-education/instructional-materials-0>
- ***“What do I know about Oregon?”*** handout
- ***“Oregon Scavenger Hunt”*** handout
- ***“Oregon Road Trip”*** handout 11x17 paper or poster board
- Supplemental travel information (travel books, brochures, travel websites, etc.)
- Travel websites: Travel Oregon - [HYPERLINK](http://www.traveloregon.com)  
"http://www.traveloregon.com" <http://www.traveloregon.com> Trip Check -  
[HYPERLINK](http://www.tripcheck.com/Pages/RCmap.asp?curRegion=0&mainNav=RoadConditions)  
"http://www.tripcheck.com/Pages/RCmap.asp?curRegion=0&mainNav=RoadConditions"
- Oregon Live Travel - <http://www.oregonlive.com/travel/>
- Oregon.com - <http://www.oregon.com/travel.cfm>
- Computers with internet access
- Road Trip Grading Rubric (for teachers)
- 3" x 5" cards
- Oregon counties overhead

## Presentation Steps:

### Day 1

Hand out the **“What do I know about Oregon?”** handout and give the students 3-5 minutes to fill in the answers on Side 1. If students aren’t sure how to answer this question, they should guess. Teacher can briefly discuss student responses, and place the brainstorming ideas on a pictorial input chart of the state of Oregon.

- Students take notes in their journals. Students do a think, pair, share first. As students are sharing their brainstorming ideas, the teacher will direct their attention to prepositions. For example, if a student says, “Mountains” for one of the concepts, the teacher might say, “What is **in** the mountains?” And whatever the student might say, the teacher directs their attention to the idea of prepositions, and prepositional phrases. The teacher elicits a quick brainstorm of different prepositions, and writes it on poster paper. S/he then puts the sentence frame at either the top or the bottom of the paper.
- Teacher and students can briefly discuss what they “think they know” about Oregon.
- Teacher will collect the handouts and save them for the conclusion of unit.
- Vocabulary activity - Students will take notes on Day 1 vocabulary words. They will write the word, the definition, and a pictorial representation of the word as the teacher models it on our word wall for this unit.

Optional: Teacher creates a slide show of scenic images of features of Oregon and shares with the students.

### Day 2

- **Do Now**–Vocabulary activity: As students enter the classroom, they are equally assigned an odd or even number. Odd numbered students receive a 3"X5" card with a written vocabulary word, while even numbered students receive a 3"X5" card with a definition to match each vocabulary word. Students then match the vocabulary word with the correct definition, and share with the class.
- Use the PowerPoint presentation to introduce the maps and how to use them. The PowerPoint presentation shows some of the maps from the *Student Atlas of Oregon*. Explain the different maps, their uses, and how maps are made. Slide 2 of the PowerPoint identifies what composes a map. Slides 3-5 cover types of maps and thematic maps. Slides 6-7 explain how geographers use maps. Slide 8 reviews latitude and longitude. Slides 9-11 review how cartographers use symbols and how scale is used in mapping. This overview should prepare students when they create their own map of Oregon.
- Solicit and answer questions.

### Day 3

- **Do Now**--Vocabulary activity: Students will add to their notes using the Day 3 vocabulary words. They will write the word, the definition, and a pictorial representation of the word as the teacher models it on our word wall for this unit.
- Hand out the **“Oregon Scavenger Hunt”** assignment and copies of *Student Atlas of Oregon*. Do #1 together (continue examples as needed). *Note: If no hard copies of the Student Atlas of Oregon are available, students can work on the computer or the teacher can print out copies of maps from the Student Atlas of Oregon website.* Hand out an overhead overlay or photocopy of the counties map to each group of students to use as a reference while navigating the atlas. Give the students 20-30 minutes to finish the scavenger hunt with a partner. Debrief as a class if time permits. Ticket out the door—turn in the scavenger hunt.

### Day 4

- **Do Now**--Vocabulary Activity with Day 3 vocabulary words: As students enter class, hand each student a 3 x 5” card. Some students will have a card with the word and other students will have a card with the definition. Students will find the student with the matching card. Students will then share out their word and definition.
- Hand out the **“Oregon Road Trip”** assignment sheet and go over the assignment. Have students review the atlas in groups and write the page number where they will find each trip requirement item. Students will discuss where they would like to visit on their road trip. Students will check in with the teacher explaining their road trip plan. At this time, students will get their map materials. Students begin the mapping activity.

### Day 5

- **Do Now**—Students get with their partners and write one sentence describing one area they have visited making sure they incorporate at least one vocabulary word and a prepositional phrase on their **Do Now** sheet. *Students share writing with others or class.*
- Students work on their **Oregon Road Trip** assignment, map work. in groups.
- Ticket out the door—Students will share—first with a partner group, and then with the whole group, one thing they’ve learned for the day—no repeats—they have to be original.

### Day 6

- **Do Now**—Give each partner group a 3 x 5” card with one of the following words: physical features, points of interest, ecoregions, vegetation zones, DOGSTAILS, scale, and cities. Groups will explain what the concept/term means and provide at least one example from the state of Oregon.
- Teacher reminds students that the mapping component of the **Road Trip** is due at the end of class. Students should be working on the DOGSTAILS. Students work on their maps.
- Ticket out the door—Students will show the completed maps.

## Day 7

- **Do Now**—Students write one sentence using a prepositional phrase to describe a feature of Oregon. Students are reminded of prepositional phrases and the sentence frames we have on our preposition poster. Students are reminded that this is correct language usage.
- Review vocabulary by covering the definitions and pictures on the word wall. Teacher will introduce a new form and function for the students before they start their journals.

**Form:** Describing people, places, and things

**Function:** Nouns and Adjectives

**B:** \_\_\_\_\_ is/are \_\_\_\_\_. *The mountains are beautiful.* (noun) (adjective)

**I:** \_\_\_\_\_ is/are \_\_\_\_\_ \_\_\_\_\_.  
*Portland is a large city.* (noun) (adjective) (noun)

**A:** \_\_\_\_\_ is/are \_\_\_\_\_ and \_\_\_\_\_.  
(noun) (adjective) (adjective) *The Steens Mountains are incredible and majestic.*

- Teacher creates another poster paper while students take notes -  
Brainstorm: What is a noun? - write the definition of a noun and list some nouns using Oregon examples. Brainstorm: What is an adjective? - write the definition of an adjective and give some Oregon examples. Write the sentence frame that fits this class level.
- Teacher models a journal entry - pointing out nouns and adjectives, and how adjectives enhance our writing. Students will begin their journal entry.
- Ticket out the door - students show the teacher their progress, then clean up and go.

## Day 8

- **Do Now** - Students write one sentence about Oregon using the sentence frame provided, including at least one noun and one adjective. Students share some examples - maybe just a few depending on time. Remind students of nouns, adjectives and prepositions, and model a sentence with all three. *Ex. Crater Lake is beautiful in the springtime. The incredible Crater Lake is located in central Oregon.*
- Students work on journals.
- Remind students that their whole project should be completed by the end of class tomorrow.
- If they finish their journals today, they should practice their presentations.
- Ticket out the door—Students share with teacher what they have completed and what they still need to do.



### Day 9

- **Do Now**—Students write one vocabulary word in a sentence describing Oregon that they have used, or can use, in their journal entry. Students finish their journals.
- Students practice giving their presentations for tomorrow. Students will be giving their presentations tomorrow.

### Day 10

- If time allows, use 1-2 class periods to present.
- **Do Now**—Students get their materials ready for the presentation. Teacher passes out listening sheets for listeners to fill out while groups are sharing. Students give presentations.

### Day 11

- Do Now - students get their materials ready for the presentation and finish them.
- At the conclusion of the unit, have the students return to their “**What do I know about Oregon**” handouts. Have them fill in the answers on Side 2 and compare them with what they had on side 1.
- Were they able to fill in anything they couldn't before? What else did they discover, etc.?

### **Assessment:**

- The “**What do I know about Oregon?**” handout serves as a very quick assessment to see what they learned from the unit.
- The “**Oregon Scavenger Hunt**” assignment will allow you to judge how well the students were able to use the various types of maps to find information.
- Use the attached grading rubric to score the “**Oregon Road Trip**” assignment.

### **Extensions:**

- To extend the Road Trip project, you could give your students a budget and require them to explain what they spent their money on and why. You could also give them a specific time frame for the trip and/or a minimum/maximum distance for travel.
- Students could create a travel brochure about one or more of the places they visit on their road trip complete with photos and descriptions designed to bring in visitors.
- Students could blog their trip online and search the web for pictures of each of their stops to supplement their descriptions. Visit (via Google Earth) the stops on your road trip. Write a reaction to what you observe (i.e. What surprised you? What was overwhelming/underwhelming? Will you try to visit that place one day? If yes, explain why?)

**Handouts for My Oregon Road Trip below:**

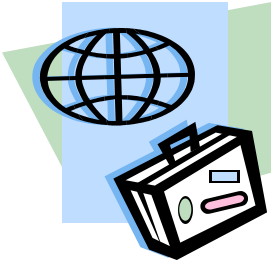
**1.) Mapping my Oregon Road Trip**

**2.) Oregon Road Trip**

**3.) Oregon Road Trip Grade Sheet**

**4.) What Do I Know About Oregon?**

**5.) Oregon Scavenger Hunt**



# Mapping my Oregon Road Trip

By Elaine Nelson & Kerrie O'Brien

## Overview

The objective of this unit is to introduce and familiarize students with various maps of Oregon. Students will analyze, interpret and gather information from various maps in order to create their own map of Oregon. It also incorporates reading and writing content standards.

## Grade Level

This unit is designed for grade seven but could easily be used in grades five through nine with minor adaptations.

## Time Frame

This unit will take approximately 1-2 weeks, depending on the length of class periods and the desired amount of time for students to work on the project.

## Connection with the Curriculum

### Oregon Geography Content Standards – Benchmark 3

- Understand the spatial concepts of location, distance, direction, scale, movement, and region.
- Use maps and other geographic tools and technologies to acquire, process, and report information from a spatial perspective.
- Locate major physical and human (cultural) features of the Earth.
- Compare and analyze physical (e.g., landforms, vegetation, wildlife, climate, and natural hazards) and human (e.g., population, land use, language, and religion) characteristics of places and regions.

### National Geography Standards

- The World in Spatial Terms  
Standard 1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.
- Places and Regions  
Standard 4. The physical and human characteristics of places.

## Geographic Question

- How do you use maps to find information and create new maps?

## Objectives

By the end of the unit, the students will:

- Know more about Oregon's geography
- Understand some of the different types of maps
- Be able to use an atlas with different types of maps to find information

## Materials List

- PowerPoint presentation
- *Student Atlas of Oregon* website <http://studentatlasoforegon.pdx.edu/>
- "What do I know about Oregon" handout
- "Oregon Scavenger Hunt" handout
- "Oregon Road Trip" handout
- 11x17 paper or poster board
- Supplemental travel information (travel books, brochures, travel websites, etc.)
- Travel websites:
  - Travel Oregon - <http://www.traveloregon.com>
  - Trip Check - <http://www.tripcheck.com/Pages/RCmap.asp?curRegion=0&mainNav=RoadConditions>
  - Oregon Live Travel - <http://www.oregonlive.com/travel/>
  - Oregon.com - <http://www.oregon.com/travel.cfm>
- Computers with internet access
- Road Trip Grading Rubric (for teachers)

## Procedure

1. Pass out the "What do I know about Oregon?" handout and give the students 3-5 minutes to fill in the answers on Side 1. If they're not sure what the answers are, they should guess.
2. Teacher and students can briefly discuss what they "think they know" about Oregon. Teacher will collect the handouts and save for the conclusion of unit.
3. With the PowerPoint presentation, introduce the maps and how to use them. The PowerPoint presentation contains some of the maps from the *Student Atlas of Oregon*. Explain the different maps, their uses, and how maps are made. Slide 2 identifies what composes a map. Slides 3-5 cover types of maps and thematic maps. Slides 6-7 explain how geographers use maps. Slide 8 reviews latitude and longitude. Slides 9-11 review how cartographers use symbols and how scale is used in mapping. This overview should prepare students when they create their own map of Oregon. Solicit and answer questions.
4. Hand out the "Oregon Scavenger Hunt" assignment and copies of *Student Atlas of Oregon*. Do #1 together (continue examples as needed). (Note: If no hard copies of the *Student Atlas of Oregon* are available, students can work on the computer or the teacher can print out copies of maps from the *Student Atlas of Oregon* website.)

5. Give the students 20-30 minutes to finish the scavenger hunt with or without a partner.
6. You may choose to go over the answers as a class, time allowing.
7. Hand out the “Oregon Road Trip” assignment sheet and go over the assignment.
8. The “Oregon Road Trip” assignment should take 4-5 class periods to prepare.
9. If time allows, use 1-2 class periods to present.
10. At the conclusion of the unit, have the students return to their “What do I know about Oregon” handouts. Have them fill in the answers on Side 2 and compare them with what they had on side 1. Were they able to fill in anything they couldn’t before? What else did they discover, etc.?

### **Assessment**

- The “What do I know about Oregon?” handout serves as a very quick assessment to see what they learned from the unit.
- The “Oregon Scavenger Hunt” assignment will allow you to judge how well the students were able to use the various types of maps to find information.
- Use the attached grading rubric to score the “Oregon Road Trip” assignment.

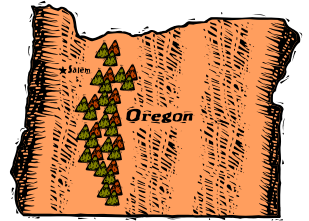
### **Extensions**

1. To extend the Road Trip project, you could give your students a budget and require them to explain what they spent their money on and why. You could also give them a specific time frame for the trip and/or a minimum/maximum distance for travel.
2. Students could create a travel brochure about one or more of the places they visit on their road trip complete with photos and descriptions designed to bring in visitors.
3. Students could blog their trip online and search the web for pictures of each of their stops to supplement their descriptions.
4. Visit (via Google earth) the stops on your road trip. Write a reaction to what you observe (i.e. What surprised you? What was overwhelming/underwhelming? Will you try to visit that place one day? If yes, explain why?)

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_



# Oregon Road Trip!!



You are about to embark on a road trip around the great state of Oregon! You will turn in a map of your trip and a journal telling about what you did and saw. You and a partner can decide where you want to go and what you want to see on your journey. However, you must follow the requirements below:

## Trip Requirements:

- You must visit at least two (2) cities
- You must visit at least two (2) physical features
- You must visit at least two (2) other points of interest
- You must visit at least two (2) different ecoregions
- You must visit at least two (2) different vegetation zones

## Map Requirements:

- Outline of Oregon - 11x17 sheet or poster board
- Label five (5) cities, including the ones you plan to visit
- Label five (5) physical features, including the ones you plan to visit
- Label five (5) other points of interest, including the ones you plan to visit
- Map route and set to scale
- Include your DOGSTAILS for reference: Date, Orientation (a Compass Rose), Grid, Scale, Title, Author, Index, Legend, & Situation (an indicator of the location of your mapped place is in relation to the rest of the world)

## Journal Requirements:

- Identify the average temperature and precipitation of the places you will visit and explain what kind of clothes you will need to pack! (1 paragraph)

- Describe the cities, physical features, and other points of interest you visit and explain why you chose to visit each one (1 paragraph each)
- Describe two (2) ecoregions you will pass through (1 paragraph each)
- Describe two (2) vegetation zones (1 paragraph each)
- Describe three (3) kinds of animals you might see (1 paragraph each)

Name:

Name:

## Oregon Road Trip Grade Sheet

### Trip Requirements:

- At least 2 cities, 2 physical features, 2 other points of interest, 2 ecoregions, & 2 vegetation zones were visited

\_\_\_\_\_ / 20 points

### Map Requirements:

- Oregon is outlined neatly and accurately
- At least 5 cities, 5 physical features, & 5 points of interest are labeled
- The route is mapped to scale
- DOGSTAILS are included and accurate
- Map is colored, neat, and reflects effort

\_\_\_\_\_ / 40 points

### Journal Requirements:

- Average temperature and precipitation are explained and correlate to clothing choices.
- Places visited (cities, physical features, and other places of interest) are described in detail.
- Ecoregions (2), vegetation zones (2), and animals (3) are described in detail.
- Spelling, grammar, and punctuation are correct.
- Good writing skills and good handwriting are demonstrated.

\_\_\_\_\_ / 40 points

\_\_\_\_\_ / 100 points TOTAL

## Oregon Road Trip Grade Sheet

### Trip Requirements:

- At least 2 cities, 2 physical features, 2 other points of interest, 2 ecoregions, & 2 vegetation zones were visited

\_\_\_\_\_ / 20 points

### Map Requirements:

- Oregon is outlined neatly and accurately
- At least 5 cities, 5 physical features, & 5 points of interest are labeled
- The route is mapped to scale
- DOGSTAILS are included and accurate
- Map is colored, neat, and reflects effort

\_\_\_\_\_ / 40 points

### Journal Requirements:

- Average temperature and precipitation are explained and correlate to clothing choices.
- Places visited (cities, physical features, and other places of interest) are described in detail.
- Ecoregions (2), vegetation zones (2), and animals (3) are described in detail.
- Spelling, grammar, and punctuation are correct.
- Good writing skills and good handwriting are demonstrated.

\_\_\_\_\_ / 40 points

\_\_\_\_\_ / 100 points Total

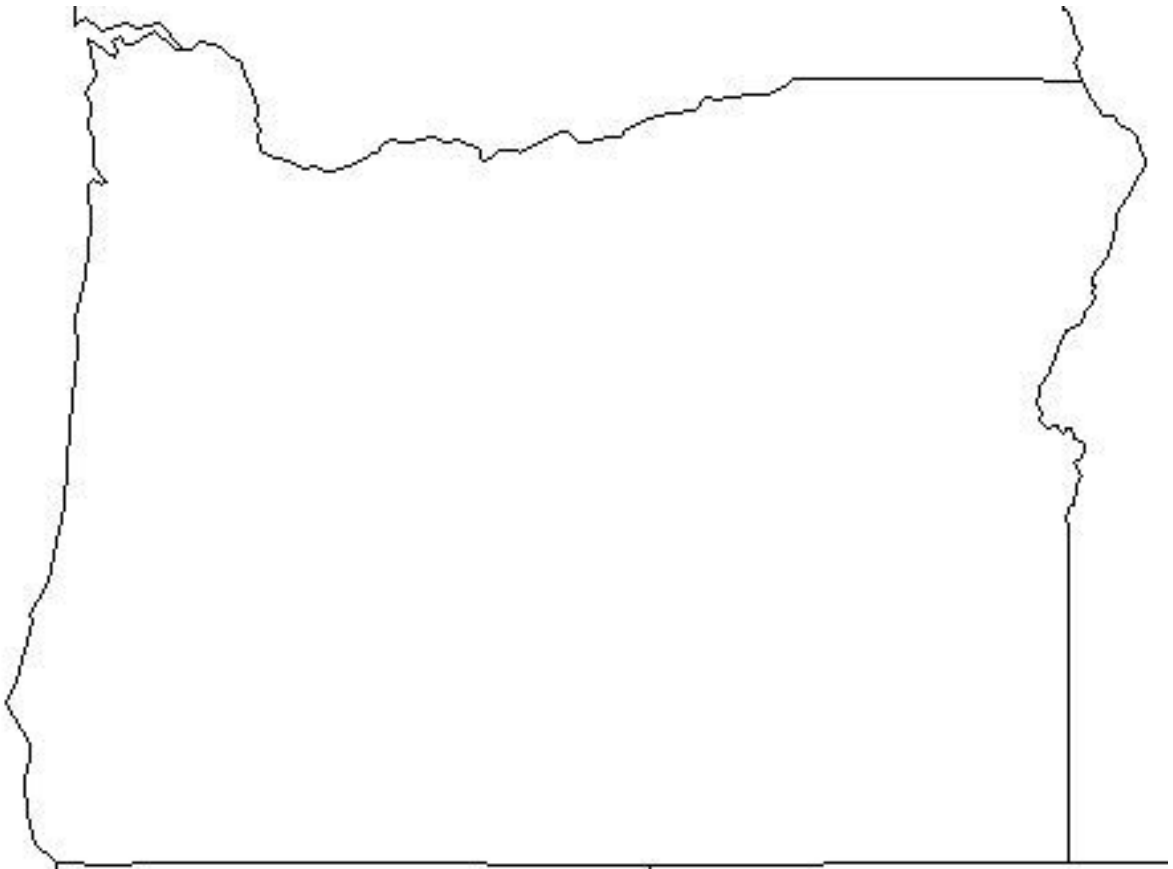


# What do I know about Oregon?

## Side 1: Pre-Assessment

Mark the following items on the blank map of Oregon and label them.

1. Highest point
2. Two (2) lakes
3. Three (3) rivers
4. Two (2) mountain ranges
5. Desert
6. The largest city
7. Five (5) smaller cities
8. Three (3) counties
9. Two (2) major thoroughfares
10. Three (3) sights to see

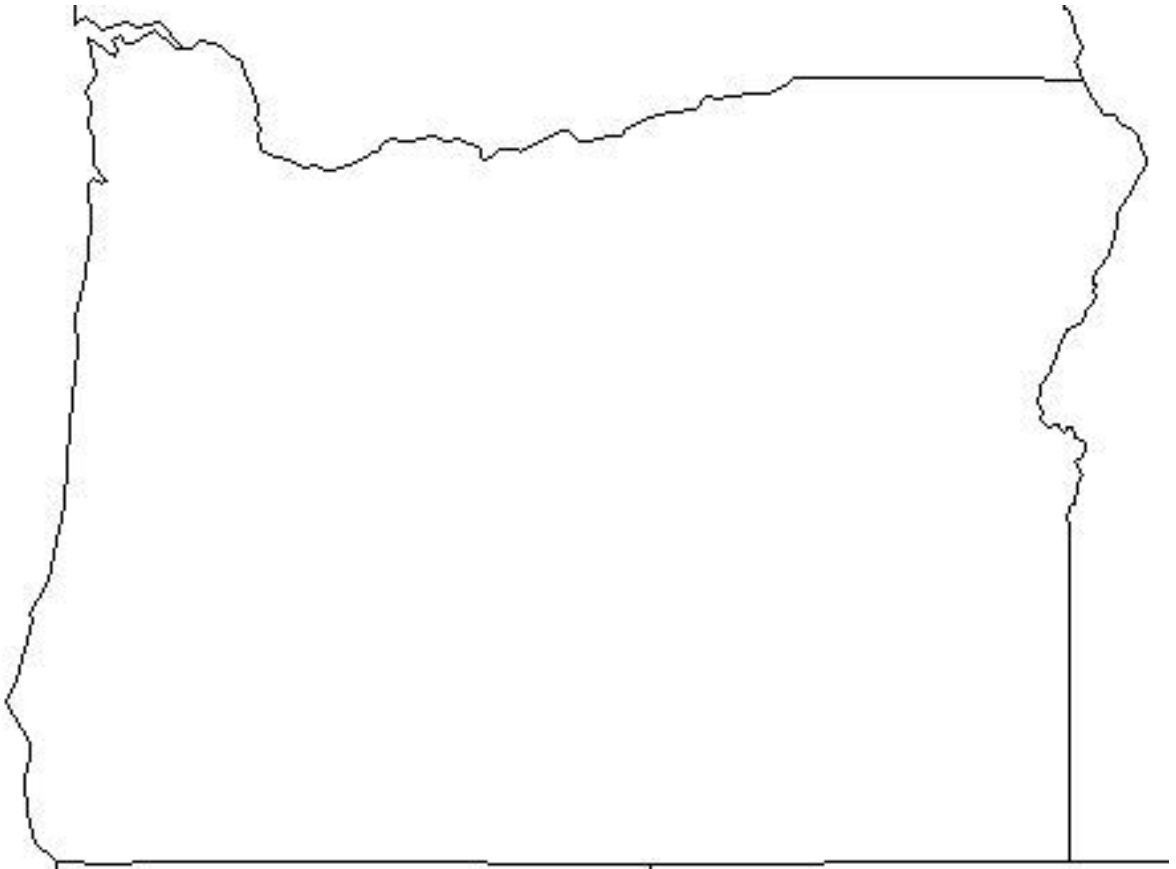


# What do I know about Oregon?

## Side 2: Post-Assessment

Mark the following items on the blank map of Oregon and label them.

1. Highest point
2. Two (2) lakes
3. Three (3) rivers
4. Two (2) mountain ranges
5. Desert
6. The largest city
7. Five (5) smaller cities
8. Three (3) counties
9. Two (2) major thoroughfares
10. Three (3) sights to see



Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## Oregon Scavenger Hunt

Use the *Student Atlas of Oregon* to find the following information. Identify what map you used to locate information and record your answers.

Questions:	Title of Map(s) Used
1. How many ecoregions are in Oregon? Describe two.	
2. Name three crops grown in Oregon. Where do they grow?	
3. What is the annual precipitation in the southwestern corner of Oregon? How does it compare to where you live?	
4. How many counties border yours? Name the counties.	
5. Explain what kind of clothes one would wear in the city of Bend in January.	
6. What is the distance from Albany to The Dalles if you are driving?	
7. Where do most people in Oregon live and why?	

8. Are you likely to feel an earthquake in Crook county? Why?	
9. What river in the Northwest has the most dams? Why?	
10. What county would have the most playgrounds per person: Multnomah, Curry, or Malheur? Why?	
11. Why are there not many big trees east of the Cascades?	
12. Where do you not find bears and why?	
13. Why do you think 20-24 year olds represent the smallest population in Curry County?	
14. Why does wheat not grow in southeast Oregon?	
15. How many cities outside the Willamette valley have a population of at least 50,000? Name them.	



## Animal Footprints across Oregon

### Overview:

In this lesson, students will work in groups to determine the best ecoregion for specific animals found in Oregon. Students will focus on the role of topography in an ecoregion and determine one location, in Oregon, where a particular animal might live.

### Geographic Question:

What is topography and how does topography affect where animals live in Oregon?

### Connection with Curriculum:

Learning Level (2-3) Social Studies

### Objectives:

Students will be able to analyze the topography of Oregon and, with that information, predict where they live in Oregon.

### National Geography Standards:

# 3 - How to analyze the spatial organization of people, places, and environments on the Earth's surface.

# 4 - The physical and human characteristics of places.

# 7 - The physical processes that shape the patterns of the Earth's surface.

### Oregon Geography Standards:

2.7. Use basic information on maps and other geographic tools to locate and identify physical and human features of the community.

3.10. Identify and compare physical features of Oregon and Northwestern states.

### English Language Proficiency Standards for ELD:

*Expressing and Supporting Opinions*

### Language Objective:

*Function:* Expressing and Supporting Opinions

*Form:* Sentence Structure

*Beginning:* I like/don't like \_\_\_\_ (concrete topics).

*Intermediate:* I think/agree with (don't) \_\_\_\_ because \_\_\_\_.

*Advanced:* If \_\_\_\_ could/would/should/ \_\_\_\_, I think \_\_\_\_ could/would/should \_\_\_\_.

### Targeted Language Skills:

*Reading:* Students read the vocabulary words, a topography map, and a map of the wildlife of Oregon.

*Writing:* Students write the vocabulary words, their own maps of Oregon, and reflections.

*Speaking:* Students discuss the vocabulary words with one another, all areas of the lesson with the teacher, as well as with one another.

*Listening:* Students listen to the teacher and their peers, discuss the topography map, and other aspects of the lesson.

**Vocabulary:** Use pictures whenever possible

elk	American Beaver	range
Black Bear	Western Rattlesnake	elevation
Bald Eagle	mountain	river
Spotted Owl	desert	mountain
pronghorn	ocean	
Redlegged Frog	topography	

### Materials:

- Six copies of each type of footprint from the *Wildlife Distribution* map from *Student Atlas of Oregon*
- Maps of Oregon for each group
- Topography maps of Oregon from <http://studentatlasoforegon.pdx.edu/PDFs/Map15.pdf>
- *Wildlife Distribution* maps
- Glue/Tape
- Large blank map of Oregon, or a smaller one, to display on the document camera
- Pictures of the 8 animals from the *Wildlife Distribution* map, and the different ecosystems (coastal/mountain, mountains, river/mountain, and desert) found in Oregon

### Presentation Steps:

1. Brainstorm with students the types of animals that live in Oregon. List these animals on the board.
2. Post the pictures of the 8 animals found on the *Wildlife Distribution* Map on the board, along with the ecosystem pictures.
3. Think-Pair-Share Question: *Where does a Black Bear live?* (Forest, mountain, desert, etc.)

“I think a \_\_\_\_\_ would live in the \_\_\_\_\_ because \_\_\_\_\_.”

Model: “I think a Black Bear would live in the forest because it eats plants.”

4. Give each group post-it notes to record what they know about each animal. As a group, after the post-its are posted, discuss prior knowledge about one animal at a time. Clarify misconceptions and note similarities and differences.
5. "Today we are going to use a topography map and what we know about these animals to help us understand where they live in Oregon."
6. Discuss the topography map with students. *What do you notice? Are there patterns that you see? Where are the mountains? Where are the forest areas? Deserts? Valleys? How do you know?*
7. Move the ecosystem pictures to the blank map of Oregon, placing them in their general locations.
8. Model for students what is expected during the activity. Place the Black Bear footprint in a forested area on the large Oregon map.
9. Use the rattlesnake as an example to model with the whole group. Discuss where to place the rattlesnake prints and why it might live there. Select students to place the footprints on the large map.
10. Divide students into six groups and assign each group an animal. Display this activity check list on the board or document camera:  
Groups will:
  - Analyze the Oregon topography map.
  - As a group, discuss where they think their animal lives.
  - Tape their animal's footprints on the Oregon map in places where they think it lives.
  - Share their locations and reasoning with the class.
11. Handout the *Wildlife Distribution* maps to each group and allow time to discuss and compare them.
  - 1. "Our prediction was \_\_\_\_\_(correct or incorrect) because\_\_\_\_\_."
  - 2. Share and discuss the results as a class. "Were you surprised with the results? What did you learn?"
12. Have students individually write a reflection on what kinds of animals live in which environments in Oregon.

### **Assessment:**

*Informal assessment* will take place during group work. The teacher will circulate among student groups to evaluate if students are using the maps correctly, understand the given task, and are able to connect the idea of wildlife to physical environments.

*Formal assessment* will take place through evaluating students' written reflections about where their animal lives. Students will need to include why they believe their animal would be suited to this environment and can include a picture.

### **Adaptations:**

*Below Grade Level:* Students could collaborate with their group members before they write their reflection on what types of animals live in Oregon. They would make a chart of the information they know together before they write their own individual reflection.

*Above Grade Level:* Students could look at other factors affecting wildlife distribution in Oregon such as vegetation, average temperature highs and lows, etc. Students would be asked to include this information in their written reflection.



**Extensions:**

- Have students create a large class map of all the animals discussed. Students can evaluate how these animals may interact (example: the food chain).
- Research where else these animals live in the country or the world. What does Oregon have in common with these locations?
- Math: Graph the 4 ecoregions and the 8 animals to see what patterns they may find and play a memory match game with the vocabulary cards.

Original Authors: Kayla Mooney, Amanda Perrigo, and Megan Wiltermood

Lesson Adapted by: Magda Abarca and Jonalee Vercher

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.



## **Exploring the Relationship between Bodies of Water and Population Distribution in Oregon**

### **Overview:**

In this lesson, students learn about the relationship between main bodies of water in Oregon and the population distribution. They will examine two maps showing the distribution of rivers and lakes and a population distribution map. Students will create overlays of those maps in order to analyze and visually connect the relationship between population distribution and bodies of water. Note: This lesson may take two or three days to complete depending on the students.

### **Geographic Question:**

How are population density and distribution affected by rivers and lakes in Oregon?

### **Connection with Curriculum:**

Learning level (3-5) Geography

### **Objective:**

- Examine two thematic maps of Oregon showing population distribution and location of the state's main bodies of water.
- Create overlays of each map to analyze the relationship between the two maps.
- Explain the relationship between population distribution and density, as well as the location of main bodies of water.

### **National Geography Standards:**

**#1** - How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

**#3** - How to analyze the spatial organization of people, places, and environments on Earth's surface.

**#9** - The characteristics, distribution, and migration of human populations on Earth's surface.

**#15** - How physical systems affect human systems.

### **Oregon Geography Standards:**

**4.8.** Use geographical tools (e.g. maps, GIS, Google Earth) to identify absolute and relative locations and physical characteristic of places in Oregon.

**4.10.** Compare and contrast varying patterns of settlements in Oregon, past and present, and consider future trends.

**4.12.** Explain how people in Oregon have modified their environment and how the environment has influenced people's lives.

## English Language Proficiency Standards for ELD:

*Evaluating* - Students learn to understand and use complex sentences using very specific nouns, verbs and adjectives.

*Cause and Effect* - Verb forms (past tense and conditional)

### Language Objectives:

*Function:* Evaluating

*Form:* Nouns, verbs, and adjectives

*Beginning:* That/Those\_\_\_\_\_. Each/Every\_\_\_\_\_. One/Two \_\_\_\_\_.  
The first/the second\_\_\_\_\_.

*Intermediate:* Both\_\_\_\_\_ and\_\_\_\_\_ is/are/has/have\_\_\_\_\_.  
Neither\_\_\_\_\_ is/are/has/have\_\_\_\_\_, nor\_\_\_\_\_.

*Advanced:* This \_\_\_\_\_ is too\_\_\_\_\_, and/so is used for \_\_\_\_\_.

*Function:* Cause & Effect

*Form:* Verb forms (past tense and conditional)

*Beginning:* Not Applicable

*Intermediate:* Descriptive sentence with past tense verb

*Advanced:* If \_\_\_\_ had/hadn't\_\_\_\_, \_\_\_\_ would/wouldn't have \_\_\_\_\_.

### Targeted Language Skills:

*Reading:* Students will read a population density map and read the relationship between population and the location of rivers. Students will read "Freshwater" handout.

*Writing:* Students will write vocabulary words and their definitions. Students will write their own maps. Students will take notes and write ideas.

*Listening:* Students will listen to teacher explanation of population density and water distribution. Students will listen to one another's ideas.

*Speaking:* Students will discuss population density, questions posed by the teacher, as well as one another. Students will share their maps. Students will present findings.

### Materials:

1. A photocopy of the *Rivers and Lakes Map*, from the *Student Atlas of Oregon*, for each student. This can be found at:  
<http://studentatlasoforegon.pdx.edu/PDFs/Map42.pdf>
2. A photocopy of the *Population Distribution Map*, from the *Student Atlas of Oregon*, for each student. This can be found at:  
<http://studentatlasoforegon.pdx.edu/PDFs/Map56.pdf>
3. Two (2) 8.5x11 transparencies per student

4. One (1) blue wet erase marker for each student
5. One (1) orange (or any other color) wet erase marker for each student
6. One (1) 8.5x11 sheet of white computer paper for each student
7. Word Wall
8. Four (4) pieces of butcher paper
9. Markers
10. Masking Tape
11. Checklist for maps (provided)
12. National Geographic “Freshwater” handout (provided)
13. Magazines to cut up for poster

**Presentation Steps:**

**DAY ONE (the lesson will be separated into two days to make the content more accessible to ELLs)**

- Begin lesson by asking the following questions:
  1. How do you use water throughout the day?
  2. How much water do you think you use in an average day?
- Divide students into mixed-ability groups and instruct them to create a collage/poster that is titled “Uses of Water.” Students will discuss their personal uses of water, cut out (from magazines) pictures of various uses of water, and create a poster.
- Introduce vocabulary that will be useful to express students’ views on transportation, food source, protection, and energy. Begin the “Define, Illustrate, and Sentence” activity for the required terms. Once the students have completed this activity, the teacher will add the words, with a picture, to a word wall (see attached).
- Introduce the “Freshwater Facts” handout attached to this lesson plan.
- Hand out the population density maps to provide a visual to introduce population density. Write population density on the board. Ask the class what they see on the map. Guide a discussion by asking what the orange clusters could mean (add population density to the word wall when everybody has agreed on the meaning of the map).
- Tell the students that they are going to identify ways that population density and distribution is affected by rivers and lakes. *Point at the word wall when referencing population relationship with rivers and lakes.*
- Divide the students into four (4) groups and assign each student in the group a role:
  - a. One (1) student to write responses
  - b. One (1) student to get the markers and a piece of butcher paper from the teacher
  - c. One (1) or two (2) students to share the responses with the group, depending on the size of each group

- d. One (1) student to hold the poster while the responses are being shared
- e. One (1) student to collect the markers and bring them back to the teacher when the activity is over
- Tell students that groups will be answering different questions about water.
  - a. Group 1 – How do we use water as protection?
  - b. Group 2 – How do we use water as a food source?
  - c. Group 3 – How do we use water as transportation?
  - d. Group 4 – How do we use water as an energy source?

*\*\*\*Scaffold the groups accordingly so that ELLs are matched with native English speakers.*

- Give the groups approximately ten (10) minutes to record their responses to their group's question.
- Give each group a few minutes to share their answers with the whole class.
- Lead a class discussion, considering some of these questions, or questions of your own:

*Now that you have heard about ways that we can use water for protection, as a food source, as transportation, and as an energy source:*

- i. Is water important to people living in Oregon?*
  - ii. Why is water important?*
  - iii. Do you, or anyone you know, live near water?*
  - iv. What are some other ways that water may be important to the people living in Oregon?*
- Introduce the "cause and effect" form and function: *Because of this, this happens. This happens, therefore this....*

Examples:

*I: Because crops need water to grow, water is important.*

*A: Crops need water to grow, therefore water is important.*

*I: Because people need water to survive, water is important.*

*A: People need to water to survive, therefore water is important.*

*I: Because water is a source of energy, water is important.*

*A: Water is a source of energy, therefore water is important.*

*I: Because ships sail on water to transport goods, water is important.*

*A: Ships sail on water to transport goods, therefore water is important.*

## DAY TWO

- Explain to students that they will be using a map to locate the main rivers and lakes in Oregon and have an opportunity to create their own maps!
- Give each student one (1) photocopy of the *River and Lakes* map from the Student Atlas, as well as one (1) transparency and one (1) blue wet-erase marker.
- Ask students to put their transparency over the photocopy of the map and tape the two pieces together at the top, using just a little bit of masking tape. Show them how to do this.
- Once everyone has taped their transparency down, direct students to trace the water with the blue pen. They don't need to copy the names of the rivers and lakes onto their transparencies, but they do need to copy each of the bodies of water. Don't forget to have them write their names on the bottom of the transparency!
- When students have finished, discuss their observations:
  - a. *What did you notice about the bodies of water in Oregon?*
  - b. *Where are many of the bodies of water located?*
  - c. *Is there anyone who knows where their city is located on the map?*
  - d. *Now that we have we have found the main bodies of water in Oregon, does anyone have a hypothesis about where most people in Oregon live? Why?*
- Lead a group discussion about the answers to a-d questions. Model form and function responses. Example: *Because there is water, cities grow in population.*
- Have a few students write their hypotheses on the board.
- After the students' hypotheses are written on the board, ask them to put their transparency in a place where they can't see it.
- Hand out the photocopy of the *Population Density* map, one (1) transparency, and the orange wet-erase marker.
- Explain the key on the map.
- Direct students to tape the transparency to the map, as they did with the first one. Ask them to trace the map with their orange marker. There are many dots on the map, so tell students that it is okay if they're not able to get every single dot traced onto the transparency.
- As students finish tracing their maps, give them a piece of white paper. Direct them to lay their first transparency on the paper and put the population transparency on top. Have them staple the three (3) sheets together at the top using three (3) staples, keeping edges even.
- Students should now be able to use the population density map overlaying the rivers and lakes map to decide whether or not their earlier hypotheses were correct.

**Assessment:**

The formative assessment will be teacher observation during class discussion and during the activity. The summative assessment will be the creation of the comparison maps on the transparencies. A checklist is provided for the students at the end of this lesson. The purpose of this checklist is to reinforce basic map protocols. Have them use the checklist for their maps. I

*ELL Adaptation 9: ELL students will have an assessment based on cause and effect form and function. The student will demonstrate their knowledge of the relationship between water and population by appropriately writing one sentence.*

*I: Because there is water near Portland, population density is high.*

*A: There is water near Portland, therefore population density is high.*

**Adaptations:**

ELL students in the classroom will have an opportunity to learn new academic language. Pictures and drawings will aid in their understanding.

**Extensions:**

1. Students explore other factors in Oregon cities that might lead to high population concentration (e.g. transportation hubs).
2. Students research different uses of water in cities and why access to water is important.
3. Students trace the *Rivers and Lakes* map and the *Population Distribution* Map onto transparencies to answer their hypothesis of whether or not more people live near water than away from water in Oregon
4. Students can look at the old Native American settlements and compare/contrast them to what their maps show, in terms of population concentration and access to water.

**Bibliography:**

[www.nationalgeographic.com/freshwater](http://www.nationalgeographic.com/freshwater)

Original Authors: Kaila LaMarche, Jason Manring and Kenneth Prowse  
The final editing and adaptations for an ELL classroom were completed by the OGA  
Spanish Student Atlas of Oregon Task Force 2011.



## Checklist for Maps

### Maps

- My map has a clear title that explains its purpose.
- I have included a key or legend in which I explain all symbols.
- My map is neatly drawn, detailed, labeled, and easy to read.

## Freshwater Facts

- **1 in 7** people in the world lack access to clean water.
- By 2025, **two-thirds** of the global population will face water stress.
- The United States uses almost **408 billion gallons** of fresh water a day – approximately 100 gallons per person.
- In developing countries, **70% of industrial wastes** are dumped untreated into waters where they pollute the usable water supply.
- Bottled water costs consumers up to **2,900 times** the price of regular tap water to purchase.
- Diarrhea is the second leading cause of death of children **under the age of 5**, and the majority of those deaths are due to unsafe drinking water and inadequate availability of water for hygiene.
- The average bathroom faucet flows at a rate of 2 gallons per minute. **Turning off the tap** while brushing your teeth in the morning and at bedtime can save up to 8 gallons of water per day. That equals **2,880 gallons per year, per person!**
- **Water your lawn** or garden during the cool morning hours, as opposed to midday, to reduce evaporation.
- Install **low-flow shower heads** and faucet aerators. Since you are saving hot water, you will also reduce your energy bill.
- A leaky toilet can waste about **200 gallons of water every day**.
- Buy less stuff. Everything takes water to make, when we **reduce, reuse, and recycle**, we shrink our water footprint.
- **Know the source** of your drinking water – the river, lake, or aquifer that supplies your home. Once you know about it, you will care about it.



## The Columbia River as a Resource

### Overview:

The purpose of this lesson is to help students understand the changes that humans have made to the Columbia River and what effect those changes have had on people, animals, and the environment.

### Geographic Question:

How has the Columbia River's role as a resource changed over time?

### Connection to the Curriculum:

Learning Level (6-8) History, Language Arts, Geography, and Science

### Objectives:

- Identify the location of the Columbia River and its main tributaries.
- Discuss how the Columbia River has been used as a resource (i.e. hydroelectric power, transportation).
- Describe the effect that human use of the Columbia River has had on people, animals, and the environment.

### National Geography Standards:

**#14** - How human actions modify the physical environment.

**#15** - How physical systems affect human systems.

**#16** - The changes that occur in the meaning, use, distribution, and importance of resources.

### Oregon Geography Standards:

**6.11.** Distinguish among different types of maps and use them to analyze an issue in the Western Hemisphere.

**6.14.** Identify physical features of the Western Hemisphere and explain their effects on people and events.

**6:15.** Explain how people have adapted to or changed the physical environment in the Western Hemisphere.

**6.16.** Explain how technological developments, societal decisions, and personal practices influence sustainability in the Western Hemisphere.

### English Language Proficiency Standards for ELD:

*Cause and Effect* - Verb Forms

### Language Objectives:

*Function:* Cause and Effect

*Form:* Verb Forms

*Beginning:* Not Applicable

*Intermediate:* Descriptive sentences with past tense verbs.

*Advanced:* If \_\_\_ had/hadn't\_\_\_, \_\_\_would/wouldn't have \_\_\_.

### Targeted Language Skills:

*Reading:* Students will read a book as a class and will refer to it for comprehension questions and discussion. Students will read a map and refer to it for comprehension questions and discussion. Students will choose another book to read, and read it on their own.

*Writing:* Students will write answers to comprehension questions. Students will write a first-person narrative. Students will write lists of various features from the maps.

*Speaking:* Students will discuss the book and the answers to the comprehension questions. Students will use their notes from reading their own book and discuss it with the class.

*Listening:* Students will listen to the book they read as a class and answer comprehension questions. Students will listen to, and discuss, the information about water resources in the Atlas.

### Vocabulary:

river	transportation	economics (shipping,
tributary	watershed	transportation, fishing,
Columbia River	human-environment	manufacturing,
resource	interaction	hydroelectricity, irrigation,
dam	tribal treaty	recreation)

### Materials:

Internet Access:

- Bonneville Power Administration  
[www.bpa.gov/Power/pl/columbia/Stories/](http://www.bpa.gov/Power/pl/columbia/Stories/) or download the PDF files and print out the following stories: *Voyage to the Pacific* or *The Magnificent Journey*
- *Student Atlas of Oregon* (<http://studentatlasoforegon.pdx.edu/index.html>)  
(Maps from the Atlas: *Rivers and Lakes*, *Pacific Northwest Watersheds*, *Dams of the Pacific Northwest*, *Oregon Dams*, *Transportation*, *Ports*, and other maps)

Books:

- Cherry, L. 1992. *A River Ran Wild*. San Diego:Harcourt, Brace & Jovanovich
- Holling, H. 1941. *Paddle to the Sea*. Boston: Houghton Mifflin Company.
- Locker, T. 1984. *Where the River Begins*. New York: Puffin Books.
- Yolen, J. 1992. *Letting Swift River Go*. Canada: Little, Brown & Company. Illus. by B. Cooney.

DVD:

- Based on the book by Rolling C. Rolling. DVD. 2008. *Paddle to the Sea*. United States: The Criterion Collection. Approx. 28 minutes. ISBN: 9781604650327.

Video:

- Based on the book by Rolling C. Rolling. Video. 199?. *Paddle to the Sea*. New York: Lightyear Entertainment. Approx. 30 minutes. ISBN: 1568961332.

## Presentation Steps:

### Part One:

Begin with a reading of the book, "Paddle to the Sea," or show the video/DVD of the same name. As you read, use a map to trace the journey of Paddle through the St. Lawrence Seaway to the ocean. The map in the back of the book could be used in large format.

### Discussion questions:

1. What are some of the obstacles and/or difficulties that Paddle faced?  
(Dams, ships, storms, waterfalls, wildlife, humans, pollution)
2. What conclusions can we draw about the uses of the St. Lawrence Seaway through the book "Paddle to the Sea"?  
(Important to shipping, used to transport goods from the interior Midwest to the Atlantic, fishing, manufacturing, hydroelectricity, recreation)

### Part Two:

Direct students to use the *Water Resources* section of the Student Atlas of Oregon to answer the following questions on a piece of paper:

1. What river in the Pacific Northwest might be considered similarly valued as the St. Lawrence Seaway? Why?  
(The Columbia. Looking at the atlas, you can see that the river travels from Canada through both Washington and Oregon to the Pacific Ocean. It has tributaries from Idaho, as well.)
2. List all the tributaries of the Columbia River as it flows through the Pacific Northwest to the Pacific Ocean.
3. List the names of the dams found on the Columbia River.
4. The dams that are along the Columbia River on the Washington/Oregon border all share a common characteristic. Use the *Student Atlas of Oregon* to find this common characteristic.

### Part Three:

- Have students go to the website, [www.bpa.gov/Power/pl/columbia/Stories/](http://www.bpa.gov/Power/pl/columbia/Stories/). Students should then choose either the story, *Voyage to the Pacific* or *The Magnificent Journey*. These stories are also available as PDF downloads that can be printed.
- Have students answer the following questions as they read:
  1. Write down specific ways in which humans have used or changed the Columbia River.
  2. Write down what effects these changes have had on humans, animals, and the environment. Remember to be specific.
  3. Make a list of all the people and animals that use the river, for example, fishermen, salmon, Native Americans for a food source, and tourists.
- Use these notes for class discussions.

**Assessment:**

Write a first-person story from the perspective of one of the users of the river that you listed in #3 above. The story should show knowledge of the Columbia River's location, its tributaries, human involvement with the river, and both the positive and negative effects that involvement has had on people, animals, and the environment.

Students may need additional help in getting started with the writing process. Books that might give them some more ideas are included in the materials list.

**Adaptations:**

- For younger students, use the story *Journey of the Oncorhynchus: A Story of the Pacific Northwest Salmon*, from the Bonneville Power Administration website (see materials list). It has been specifically designed for younger students with pictures that can be colored, etc. Change the assessment to successfully complete the booklet.
- For older students, there are many issues surrounding the use of the Columbia River as a resource in current events. Examples include: the effect of dams on the salmon population, the Native American tribal connections to the river, etc. Have students look for a current news article that addresses one of these issues. Have students write about the two sides of the issue and share with the class or in small groups.

**Adaptations for ELL:****Presentation Steps:***Part One:*

Show the video/DVD/ YouTube, "Paddle to the Sea". Use a map to trace the journey of Paddle through the St. Lawrence Seaway to the ocean. The map in the back of the book could be used in large format.

Discussion questions (form cooperative groups for discussion and then reform as a large group):

1. What are some of the obstacles and/or difficulties that Paddle faced?  
(Dams, ships, storms, waterfalls, wildlife, humans, pollution)
2. What conclusions can we draw about the uses of the St. Lawrence Seaway through the book "Paddle to the Sea"?  
(Important to shipping, used to transport goods from the interior Midwest to the Atlantic, fishing, manufacturing, hydroelectricity, recreation)

Possible sentence frame: *The St. Lawrence is a transportation route from the Midwest to the Atlantic because...*

*Part Two:*

Direct students to use the *Water Resources* section of the *Student Atlas of Oregon* to answer the following questions on a piece of paper (before you do this, you must make students familiar with the various maps p. 30-33):

Jigsaw four maps, then each student becomes an “expert” on one map. They come back together and explain their maps.

Be prepared for questions and needed definitions afterwards.

1. What river in the Pacific Northwest might be considered to be of the same importance as the St. Lawrence Seaway? Why? – Or, discuss as group/class.  
Answer: The Columbia. Looking at the atlas you can see that the river travels from Canada, through both Washington and Oregon, to the Pacific Ocean. It has tributaries from Idaho as well.
2. List all the tributaries of the Columbia River as it flows through the Pacific Northwest to the Pacific Ocean. – Give meaning of tributaries and watershed. Compare list with neighbor.
3. Northwest to the Pacific Ocean. – Give meaning of tributaries and watershed. Compare list with neighbor.
4. List the names of the dams found on the Columbia River. Compare list with neighbor.

### *Part Three:*

Give and read PDF *Voyage to the Pacific* or *The Magnificent Journey*. Read the text aloud to class. Students follow along to improve fluency. Have students answer the following questions as they read (students are to focus and highlight text on ONE question only. Assign questions based on students’ ELD level, i.e. #3 is easy and #2 is more sophisticated):

1. Write down specific ways in which humans have used or changed the Columbia River.
2. Write down what effects these changes have had on humans, animals, and the environment. Remember to be specific. Why have these changes occurred?
3. Make a list of all the people and animals that use the river. For example, fishermen, salmon, Native Americans for a food source, tourists. Use these for class discussion.

### **Assessment:**

- Write, draw a diagram, create a skit, etc. a story from the perspective of one of the users of the River that you listed in #3 above. The story should show knowledge of the Columbia River's location, its tributaries, human involvement with the river and both the positive and negative effects that involvement has had on people, animals and the environment.
- Writing – at least 3 paragraphs
- Diagram – at least 3 positive affects
- Skit – at least 3 separate events or locations

Original Authors: Aimee Saddler

Lesson adapted by: Nick Clawson and Tony Ramos

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.





## Crater Lake

### Overview:

This lesson is designed to examine the story of how Crater Lake was formed and to discover how this massive body of water has changed over time. Students will identify the physical characteristics of Crater Lake, a caldera, how it has changed over time, and how humans have been affected by it.

### Geographic Question:

How was Crater Lake formed and how has it changed over time?

### Connection with Curriculum:

Learning level (4-5) Geography, Science, and Art

### Objectives:

- The student will be able to identify a crater, caldera, and compare the physical forms, features, and development of each.
- Using Visual Discovery, students will orally express their observations of pictures of Crater Lake. They will work in pairs and as a class.
- After reading “A Baptism of Fire, Mount Mazama” (from *It Happened in Oregon*), students will create a drawing of what they think Crater Lake looked like before and after Mt. Mazama erupted, using any prior knowledge along with evidence from the story and pictures.

### National Geography Standards:

#7 - The physical processes that shape the patterns of Earth’s surface.

#15 - How physical systems affect human systems.

### Oregon Geography Standards:

3.10. Identify and compare physical features of Oregon and other Northwestern states.

4.9. Explain the influence of Oregon and the Northwest’s physical systems on humans, including Native Americans.

4.12. Explain how people in Oregon have modified their environment and how the environment has influenced people’s lives.

### Oregon Science Content Standards: Standards by Design:

4.2.E.1 - Compare and contrast the changes in the surface of the Earth that are due to slow and rapid processes.

### English Language Proficiency Standards for ELD:

*Retelling, relating past events* - Students learn to understand and generate oral and written language with past tense verbs.

**Language Objectives:**

*Function:* Retelling, relating past events

*Form:* Past tense verbs

*Beginning:* Single words in response to past tense questions

*Intermediate:* Yesterday/Last/On\_\_\_\_\_ (past tense verb)  
\_\_\_\_\_.

*Advanced:* \_\_\_\_\_ have/has/had (past participle) since/for \_\_\_\_\_. -  
and/or- \_\_\_\_\_ have/has been \_\_\_\_\_-ing since/for\_\_\_\_\_.

**Targeted Language Skills:**

*Reading:* Students will read a book about Crater Lake. Students will read vocabulary words.

*Writing:* Students will draw their interpretation of how Crater Lake used to look.

Students will take notes. Students will write vocabulary words and their definitions.

*Speaking:* Students share orally their perceptions of Crater Lake. Students will discuss Crater Lake after viewing the video.

*Listening:* Students will listen to YouTube video. Students will listen to a description of Crater Lake. Students will listen during class discussions.

**Vocabulary:**

prehistoric	region	expulsion
wilderness	prey	prospector
climate	Saber-toothed Tigers	elevation
fauna	ancestors	crater
Pleistocene Period	volcano	caldera
Ice Age	lava	
Giant Mammoths	pumice	
mastodons	eruptions	

**Materials:**

- White card stock paper 16” x 22”
- Colored pencils and/or markers
- Document camera
- Copies of “Characteristics of Crater Lake”
- Class copies of “A Baptism of Fire, Mount Mazama, Crater Lake-- 5,700 B.C.”, pg. 1-3 from *It Happened in Oregon* (Crutchfield, James (Ed). 2008, Guilford: Morris Book Publishing, LLC (2007).

- Student Atlas of Oregon. (<http://studentatlasoforegon.pdx.edu/TableOfContents.html>)
  - o General Reference Map of Oregon.
  - o What is a Map?
  - o Pacific Northwest Plate Tectonics
  - o Vegetation Zones
  - o Forests
  - o Wildlife Distribution
- A variety of Crater Lake pictures, from:
  - o Travel Oregon (<http://www.traveloregon.com/Explore-Oregon/Southern-Oregon/Attractions/Outdoors-and-Nature/Crater-Lake-National-Park.aspx>)
  - o Google Earth (downloadable application)
  - o Google Images- ([www.images.google.com](http://www.images.google.com)),
  - o Oregon Blue Book (<http://bluebook.state.or.us/>)
  - o Crater Lake National Park (<http://www.nps.gov/crla/>)

### **Presentation Steps:**

1. Show video from Youtube of Volcano-Dantes Peak-  
<http://www.youtube.com/watch?v=vfIUyDjo8WM>

2. Ask students what they know about Crater Lake. Write their responses on a KWL chart.

3. Visualize: Direct students to close their eyes, and imagine Crater Lake, as the following description is read:

*Nestled like a brilliant blue gem below the rim of the spent volcano, the lake measures five miles across. Because the water is so clear, moss has been known to grow 425 feet below the lake's surface, (pg 2).*

4. Pre-teach vocabulary using a word wall, discussing word definitions, and using a visual representation. Students write the vocabulary words in their notebooks. Students can use the vocabulary chart in the Appendix that has the word, meaning, and picture. Visual representation example for word wall:

*Pre-historic Ice Age Tiger. They are also called Saber-Toothed Tigers, for their large, saber-like teeth, which extended from their mouths even when closed.*

5. Read aloud "A Baptism of Fire, Mount Mazama, Crater Lake," pg. 1-3 from *It Happened in Oregon*, using a document camera (if possible). Stop periodically to check for understanding of content and/or vocabulary (add appropriate words to word wall for visual representation).

6. Ask students to follow along with in their own books or copies (copyright permitted) as the story is read aloud.

7. Observation stations.

- Set up five stations. At each station, put large pieces of butcher paper with pictures of Crater Lake and volcanoes (before and after eruptions). Leave room on the paper for the students to write their thoughts and observations.
- Each team (usually-5-6 students) will spend about five minutes at a station.

Then they will rotate to the next station. Guiding questions:

What do you see?

What kind of landscape is around the lake?

What kind of wildlife do you think you would find?

What kind of trees grow around the lake?

Students can also refer to the following maps from the Student Atlas of Oregon:

*Vegetation Zones, Forests, and Wildlife Distribution.*

- When all stations have been visited, have the class gather to review each station and discuss their observations.

8. Refocus class and introduce the topic of how Crater Lake has changed from ancient times to today.

9. Give a 16" x 22" piece of card stock paper and colored pencils/markers, if needed, to each student.

10. Explain to students that they will be creating their own interpretation of Crater Lake, using their new knowledge, and the visual representations that they seen. Students may represent Crater Lake, before and after the eruption, in any way they choose. Be sure to include physical characteristics around the water mass. Art pieces may be used for a "Parent Night" or showcased in the classroom. The teacher may also want to create a rubric to provide students some criteria for this activity.

11. With the class, review the characteristics of Crater Lake, the life that grows around it, and how it has changed over the years:

How big is it?

How old is it?

What can be found around the lake today that wasn't there when it was created?

How does the wildlife around Crater Lake benefit from its creation?

**Assessment:**

Each student will write a paragraph comparing and contrasting Crater Lake before and after the eruption of Mt. Mazama. They will share with a partner, group, or whole class using their artwork to illustrate their description. Teacher should provide a writing rubric for this assignment.

Informal assessment will be observation of students as they participate in pair, small group, and whole class discussions.

**Adaptations:**

- The instructor will use scaffolding techniques, through realia, such as visuals (i.e. photos), physical demonstration, and drawing an adaptation to clarify the information and objective.
- The instructor will ask questions and encourage conversation to confirm understanding throughout the lesson.
- This lesson is designed to fit the needs of ELL and the majority of students on I.E.P.'s because of the inclusion of visual representation and discovery strategies throughout the lesson.
- Students who need more challenges will be asked to write two sentences, comparing and contrasting Crater Lake, as we see it today and how it looked when it was created. This activity can be done while students are participating in pair, small group, and whole class discussions.

**Extensions:**

- Students could write a letter to the Crater Lake National Park Headquarters asking for further information on a specific topic concerning the lake (how clear the water really is, tree life around the lake, animal habitation around the lake, etc.)
- Students could further their discovery of Crater Lake by comparing the characteristics (depth, age, surrounding life, etc.) of this lake to the Great Lakes of Michigan or other lakes
- Math connection: Graph characteristics (depth, area, age, temperature, etc.) of Crater Lake and other lakes
- Have a student, or students, contact an expert and arrange for him/her to come in & present
- Students write an informative speech about Crater Lake and creating a PP with photos to present to another grade level or during a "Gallery Night" for parents and the community
- Students could write an informative article for the class newspaper or class website
- Students could be offered the opportunity to construct a 3-D model that erupts and demonstrates specific geographic information

Original Author: Joyce Coskey

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.



## **Ecoregions of Oregon: Many Pieces, One Puzzle**

### **Overview:**

The purpose of this lesson is to improve and refine knowledge of Oregon's Ecoregions. Designed as an introductory lesson, students will be using atlases and informational materials to research and discover varying aspects of defined Oregon Ecoregions. Extensions are listed to amplify and support this information.

### **Geographic Question:**

How are Oregon Ecoregions defined? Where are the regions located around the state?

### **Connection with Curriculum:**

Learning level (4-6) Geography

### **Objectives:**

Define Oregon Ecoregion characteristics by independently researching (or presenting with speaking and writing) an assigned Ecoregion, and collecting data from peer presenters.

### **National Geography Standards:**

**#1** - How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

**#4** - The physical and human characteristics of places.

### **Oregon Geography Standards:**

**4.8.** Use geographical tools (e.g. maps, GIS, Google Earth) to identify absolute and relative locations and physical characteristics of places in Oregon.

**6.12.** Collect and analyze data to describe regions of the Western Hemisphere (Oregon).

**6.14.** Identify physical features of the Western Hemisphere (Oregon) and explain their effects on people and events.

### **English Language Proficiency Standards for ELD:**

*Defining* – Students learn to define concrete and abstract objects/concepts with correct nouns, pronouns, and adjectives.

### **Language Objectives:**

*Function:* Defining

*Form:* Nouns, pronouns and adjectives

*Beginning:* A \_\_\_\_\_ is \_\_\_\_\_.

*Intermediate:* (possessive pronoun) \_\_\_\_\_ (past tense irregular verb) \_\_\_\_\_.

*Advanced:* (possessive pronoun) \_\_\_\_\_ (past tense irregular/regular verb) \_\_\_\_\_, however/but/and \_\_\_\_\_ (past tense irregular/regular verb) \_\_\_\_\_.

### Targeted Language Skills:

*Reading:* Students will read content specific nonfiction materials to gather information about regions.

*Writing:* Students will dictate key vocabulary for each region presented in graphic organizer.

*Listening:* Students will follow along with student presenters guiding them through the region researched.

*Speaking:* Students will present information gathered, during research, to small group and/or whole group.

### Vocabulary:

ecoregion	valley	topography
basin	plateau	mountain
range	plain	arid
humid	features	temperate
marine	gorge	characteristics
climate		

### Materials:

- *Student Atlas of Oregon*, <http://studentatlasoforegon.pdx.edu/index.html>
- Two laminated cut-outs of Oregon by Ecoregions (or individual 8 1/2x11" map\*\*)
- Map of Oregon, Ecoregions depicted
- Individual "Region Charts" found at the end of the lesson
- Oregon Blue Book (optional), <http://bluebook.state.or.us/>
- Atlas of Oregon (see bibliography)
- Markers, highlighters, pens or pencils
- Alphabetical, photo vocabulary cards specific to ecoregion vocabulary listed in lesson
- Leveled readers

### Presentation Steps:

1. Hand out the *Student Atlas of Oregon*, *Atlas of Oregon*, and *Oregon Blue Book* (if used), or make computers available for *Student Atlas of Oregon* and *Oregon Blue Book* access. Also, hand out leveled readers and photo vocabulary cards. Use this time to have students familiarize themselves with the research materials. Review previously introduced vocabulary and posters in the room. Highlight characteristics of an ecoregion: flora, fauna, climate and physical features.
2. Divide the class into nine groups, each focusing on one ecoregion. Also, provide groups with materials for researching their ecoregion. These groups will become the "Expert Groups". Distribute graphic organizer and other materials.
3. Students will work in small groups gathering information using the materials provided.
4. Students will present information gathered.

Example:

The highest elevation in my region is \_\_\_\_\_.

Animals that live in the Willamette Valley are \_\_\_\_\_.



5. Simultaneously, students will fill out their “Region Chart”.
6. As a whole group, students will then discuss the similarities and differences between the Ecoregions of Oregon. This is teacher-facilitated, using the large ecoregion map (class).
7. Using photo vocabulary cards, students will then label the class map with characteristics of each region.

**Assessment:**

The “Regional Chart” the students fill out, while sharing regional information, will assess spatial knowledge and recall information by requiring students to place appropriate information in the correct spaces. Open-ended questions will assess the students’ ability to apply the content. Students’ answers will vary, dependent upon the level of analysis appropriate to their grade.

**Extensions:**

- Further projects can include the utilization of Counties opposed to geographic Ecoregions, as well as a “Mock Museum Display” or persuasive pamphlet to entice new visitors or habitants
- Language Arts: Persuasive letter to encourage tourism or migration
- Economics: Business plan for your region (ex: Cascade Mountains – Ski Resort. How would you go about starting one? Start-up cost? Etc.)
- History: History of the region. Family, native populations, events etc.
- AG/Science: How was that region created? Population and pollution levels, soil composition, water levels, etc.
- Life Skills: Cooking lessons- creating menu using Oregon specific crops
- Teachers from alternate states/countries: Preview the Student Atlas of Oregon before this lesson and choose the maps you would find the most pertinent to the purpose of your objective
- Short on Time and resources? Instead of making cut-outs of Ecoregions, print out the blank *Ecoregion* map of Oregon provided.
- Students can use photo vocab cards as a matching memory game
- Students can create a PowerPoint of photos with vocabulary words as titles

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Original Authors: Katie Willey and Pam Salmons

Lesson adapted by: Theresa Egan and Dezire Clarke

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.

	Eastern Cascades and Foothills	Columbia Plateau	Blue Mountains	Snake River Plain	Basin and Range
Physical Features					
Animals					
Plants					
Climate					

	Coastal Range Mountains	Klamath Mountains	Willamette Valley	Cascade Mountains
Physical Features				
Animals				
Plants				
Climate				



## Love Your State by Telling the Oregon Story

### Overview:

In this unit, students will complete a research “paper” by writing a letter or making a greeting card for Oregon. This letter or card will focus on the students’ favorite recreational activities and the state landforms/characteristics that allow for that activity to take place. To accomplish this task, students will study Oregon’s physical environment (climate, landforms, waterways, and other important natural resources) and decide how the environment influences the types of recreation in the state. Students will learn details about landforms and climate relationships, and match recreational activities to the various types of landform characteristics.

A focus will be placed on building English Language Learners (ELL) language skills by constructing meaning, using tools such as comprehensible input, student interaction, and form and function sentence frames. A suggested scoring rubric is provided as part of this lesson unit to assist in assessing student performance.

### Geographic Question:

How has Oregon’s physical environment impacted the state’s recreational activities?

### Connections with Curriculum:

Learning Level (2-4) Geography

### Objective:

After a series of mini-lessons on Oregon geography (physical environment), Oregon recreational activities, and personal stories about Oregon tie-in, students will write a report (letter or postcard) identifying two of their favorite Oregon recreational activities and the geography (physical environment) that has influence over location, availability, season, and attractiveness of those activities. To further support ELLs, correct English grammar will be supported, practiced, and emphasized using sentence frames. (Example: I love Oregon's lakes and waterways because I enjoy kayaking.)

### National Geography Standards:

- # 4 - The physical and human characteristics of places.
- # 15 - How physical systems affect human systems.

### Oregon Geography Standards:

- 2.7. Use basic information on maps and other geographic tools to locate and identify physical and human features of the community.
- 2.9. Describe physical and human characteristics of the community.
- 4.12. Explain how people in Oregon have modified their environment and how the environment has influenced people’s lives.

**English Language Proficiency Standards for ELD:**

*Persuading* - Verb Forms: Imperative, future, conditional, and varied verb forms, idiomatic expressions, or embedded clauses

**Language Objectives:**

*Function* - Persuading

*Form* - Verb Forms

Beginning - Not Applicable

Intermediate - Imperative verb forms (Base form of verb) \_\_\_\_\_

Advanced - \_\_\_\_\_, isn't/don't/hasn't \_\_\_\_\_?  
\_\_\_\_\_, (dependent clause), \_\_\_\_\_.

**Targeted Language Skills:**

*Reading:* The students will be able to read about the physical aspects, summarize, and retell about their “loved aspect”. The students will read place names on a map.

*Writing:* Students will write about their “loved aspect”. Using sentence frames as guides, the students will write a Valentine card to the state of Oregon that includes a recreational activity and a physical characteristic of the state.

*Listening:* Students will follow along as the teacher is guiding them through a sample “loved aspect”. The teacher will model reading, writing, and speaking on the “loved aspect”. The students will listen and participate as the teacher introduces the Input Chart of Oregon.

*Speaking:* Students will actively participate in a group or classroom-wide discussion on an assigned or chosen “loved aspect”. Alternatively, students can also prepare and deliver an individual presentation to their group or class as part of a speaking proficiency. Students will actively participate in lesson partner discussions, small group discussions, and large group discussions.

**Vocabulary:**

landforms

mountains

sand dune

climate

valleys

ocean

waterways

lake

high desert

natural resources

river

body of water

forest

## **Presentation Steps:**

- Session I – Introduce Vocabulary

The teacher will read one personal story about Oregon, such as “Dearest Oregon, Happy Birthday,” from Oregon Stories.

Introduce vocabulary words - Give a clear definition of each and support with example pictures. Student will practice identifying each word by matching word and picture cards (Appendix 1).

Randomly hand out pictures to students. The students play a game of Quiz, Quiz, Trade with the pictures. (Q,Q,T: Each student has a picture. Students take their pictures and begin circulating around the room to find a partner. Partners take turns showing and identifying their pictures, i.e. picture of Mt. Hood. The second partner then uses the sentence frame to describe the Oregon landform. Partners then trade pictures so they each have a new one and go on to find a new partner - repeat process).

- Session II –Using Input Chart to Begin Building a Mental Map of Oregon Using Geography Vocabulary Words.

The teacher will read another personal story about Oregon.

### **Input Chart:**

An input chart is a GLAD (Guided Language Acquisition Design) strategy used to give direct information to students. In this case, an input chart can effectively be used to introduce location of Oregon landforms and geography vocabulary words in a visual way. An input chart is a large picture created in front of the students. By creating the chart in front of the students, the images are more likely to be cemented in the learners' minds. To prepare, the teacher uses a dark marker to trace a large outline of the state of Oregon on blank chart paper. Then, use pencil to add the landforms and characteristics you want to remember to discuss. The pencil will be your “cheat sheet” for presentation.

While presenting the information to students, use colored markers to color code the landforms. For example, all bordering states/oceans might be in orange. The mountains and mountain ranges could be in brown, etc. As you add to the chart, be sure to stop frequently (every few minutes) for students to “chunk and chew” the new information you are giving to them by giving them a minute or two to talk to a partner about what they are seeing on the chart (chunk and chew; pair/share).

### **Language Activity:**

Students will be introduced to form and function using a sentence frame. As a class, students will review the vocabulary list by thinking back to the input chart. If you have a number of students needing language or content support, you can color code the sentence frame to match the input chart. Use the form and function above.

- Session III – Discussion on What Students Enjoy about Oregon

The teacher will read another personal story about Oregon.

The teacher will facilitate a classroom conversation/brainstorming session on what students enjoy about Oregon and why. The teacher will give examples of things he/she loves to do in Oregon, illustrating using pictures (see examples from Appendix 2).

Introduce new “recreational activities” vocabulary words. The teacher will add to the brainstormed words to include all recreational activity words from Appendix 2.

Students will practice identifying each new word by matching word and picture cards (Appendix 2).

- Session IV – Using Input Chart to Associate Oregon Landforms and Recreational Activities.

The teacher will read another personal story about Oregon.

As the teacher reads today, students will be asked to focus on thinking about the author’s feelings, recreational activities mentioned, and any description of physical characteristics of the environment included in the story. The students and teacher can discuss the personal tie-in of what the author “loves about Oregon”. For example, in the story “Dearest Oregon, Happy Birthday,” the author mentions new snow and its effect on snowboarding. To support ELL students, activities mentioned in the story should be illustrated with picture cards depicting each activity mentioned.

As you add to the chart, be sure to stop frequently (every few minutes) for students to “chunk and chew” the new information you are giving them by allowing a minute or two to talk to a partner about what they are seeing on the chart (chunk and chew; pair/share).

Language Activity:

Students will continue their use of form and function using a sentence frame. Working in cooperative learning partner groups, they will practice writing and speaking sentences that describe their favorite recreational activities within Oregon. Each student will make at least 3 sentences.

- Session V – Student Choice

Students will research at least two activities from the class list or ones they have come up with on their own. Research can be as narrow or broad as time, resource, and skills allow. Research will be focused primarily on finding and cutting out pictures of favored activities and identifying Oregon Geographic regions and physical environments that are suited to support those activities. Advanced students can do more in-depth research, closely examining physical features, factors of climate, and accessibility. Research should include use of various maps from the *Student Atlas of Oregon*.



Language Activity:

Students will write a story or Valentine/greeting card describing their favorite recreational activities found within Oregon and share with a partner.

**Assessment:**

Scoring Rubric

Teacher needs to determine various “recreational activities”. These would generally include things that make Oregon personally appealing and attractive. Review the rubric with the student ahead of time so they know what to expect.

<b>Excellent Work!</b>	<b>Good Work!</b>	<b>Needs Improvement</b>
I wrote about 3 or more recreational activities.	I wrote about 1 or 2 recreational activities.	I wrote about NO recreational activities.
I actively participated in my individual, group, or class discussion and research. I contributed many ideas and examples.	I participated in my individual, group, or class discussion and research.	I did not participate in my individual, group, or class discussion and research.
I included descriptive details about Oregon landforms, location, and climate for my favorite recreational activities.	I included some details about Oregon landforms, location, and climate for my favorite recreational activities.	I did not included details about Oregon landforms, location, and climate for my favorite recreational activities.

Lesson adapted by Beth Essex and Mark S. Walls

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.

## **Appendix 1**

LANDFORMS

CLIMATE

WATERWAYS

NATURAL RESOURCES

HIGH DESERT

OCEAN

SAND DUNES

FOREST

RIVER

LAKE

VALLEY

MOUNTAINS

BODY OF WATER

## **Appendix 2**

CANOEING

FISHING

SKIING

WIND SURFING



## Analyzing the Relationship between Topography and Climate

### Overview:

In this lesson, students learn about the major mountain ranges, river valleys, and other physical features of Oregon and analyze their impact on precipitation and temperature across the state. Students locate and identify the major physical features and place them on a giant blank map of Oregon. When the map is complete, students will analyze climographs from different parts of the state to see how the physical layout of Oregon affects precipitation and temperature.

### Geographic Question:

How does topography influence climate patterns in Oregon?

### Connection with Curriculum:

Learning level (3-5) Geography and Science

### Objectives:

Using the *Student Atlas of Oregon*, students will be able to locate and label important topographic features such as rivers, mountains, valleys, and mountain ranges, on a blank outline map of Oregon, and will analyze how these physical features affect Oregon's precipitation and temperature.

### National Geography Standards:

- #1 - How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.
- #4 - The physical and human characteristics of places.

### Oregon Geography Standards:

- 3.10. Identify and compare physical features of Oregon and other Northwestern states.
- 4.8. Use geographical tools (e.g. maps, GIS, Google Earth) to identify absolute and relative locations and physical characteristics of places in Oregon.

### Oregon Science Content Standard:

- 3.2.E Identify Earth as a planet and describe its seasonal weather patterns of precipitation and temperature.

### English Language Proficiency Standards for ELD:

*Cause and Effect* - Verb Forms

### Language Objectives:

*Function:* Cause and Effect

*Form:* Verb forms (past tense and conditional)

*Beginning:* Not Applicable

*Intermediate:* Descriptive sentence with past-tense verbs

*Advanced:* If \_\_\_ had/hadn't \_\_\_, \_\_\_ would/wouldn't have \_\_\_.

### Targeted Language Skills:

*Reading:* Students will be able to read and label landforms on a map.

*Writing:* Students will write a rationale explaining why one might visit Oregon.

*Listening:* Students will actively listen to peers during small group and whole class discussions.

*Speaking:* Students will actively participate in small group and/or whole class discussion.

### Key Vocabulary:

ocean

river

mountain

precipitation

climate

recreation

lake

topography

valley

### Materials:

- From the *Student Atlas of Oregon*, [www.studentatlasoforegon.pdx.edu](http://www.studentatlasoforegon.pdx.edu), copies of the following maps for each student (English and Spanish versions):
  - *Rivers and Lakes*
  - *Physical Regions of the Pacific Northwest*
  - *Oregon climate*
  - *Average annual Precipitation*
  - *Average January Temperatures*
  - *Average July Temperatures*
  - *Recreation and Tourism*
- Overhead copies of the maps
- Blank outline map of Oregon for each student (at the end of this lesson)
- Giant blank map of Oregon for chalkboard/whiteboard
- Pencils, colored pens, markers etc.
- Pictures of landforms (rivers, mountains, lakes, oceans, etc.), including some key landmarks in Oregon
- List of descriptive adjectives available

### Presentation Steps:

1. Ask students about vacations, camping, or day trips that they have taken in Oregon. What did the land look like? Teacher will provide examples of adjectives to use when describing landforms (high, low, flat, wet, dry). Introduce types of landforms and use pictures as visual aids (e.g. mountains, lakes, rivers etc.). Discuss why Oregon is a great place to live.
2. Show students the *Rivers and Lakes* map of Oregon and the *Physical Regions of the Northwest* map. Have students identify key landmarks in Oregon which make Oregon unique and special.
3. Hand out blank outline maps of the state to each student and a list of physical features that you want them to label. Display landform names and pictures for students throughout the lesson. Allow time for students to work in pairs and come together as a class to complete the class map on the board.
4. Distribute the *Climographs*, *Average Annual Precipitation*, and the *Recreation and Tourism* maps. Have students examine these maps and their own maps of Oregon. Ask them to discuss with their partner, and form conclusions, about how the topography of the state influences precipitation and temperature.

5. Use think-pair-share as the format for the following questions (refer to class map when discussing as whole class):
  - a) *Why is the Willamette Valley so wet?*
  - b) *Why does Eastern Oregon have a different climate pattern from Western Oregon?*
  - c) *How is climate pattern in Astoria different from that in Burns or Klamath Falls? Explain why these differences occur.*
  - d) *How do the mountain ranges affect the climate and weather of Oregon?*
6. Have students write a letter to a student in a different state telling them about Oregon and how this state is a great place to live and/or to visit for a vacation. Students will create a postcard including a picture of their favorite Oregon landmark, and label landforms and features.

**Assessment:**

Students should be assessed formatively and summatively. 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 and the letter that they write.

Map Elements:

- Fun and informative title
- Easy to understand key/legend
- Map is visually appealing, neat, and easy to read
- All landmarks from the list have been correctly labeled on the map

**Adaptations:**

This lesson allows both logical and creative thinkers to be actively involved. By having students write, create a map, and think critically, students will have several different avenues to display their learning. This is also 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:**

- Students create a travel brochure for tourists.
- Students plan a family vacation in Oregon, incorporating the various Oregon landmarks.
- Students can study one particular aspect of Oregon geography.
- Students can play a landform matching game, individually or with a partner, using pictures from the lesson or locate other pictures in magazines and match images to vocabulary terms.

Original Author: Erin Rhodes

Lesson adapted by: Brianna Kibby and Margarita Herrera

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.







## Oregon Rivers as Guides

### Overview:

In this lesson, students work in groups to discover how explorers used Oregon Rivers to navigate the land and to create the best routes. Students take on the role of these early explorers and use maps to hypothesize the best routes for traveling across Oregon from East to West. They will create a map of early explorers' routes. Students will compare their routes to the following maps: *The Lewis and Clark Expedition, 1804-1806*; *Oregon Trail*; and *Ports*.

### Geographic Question:

How did the rivers help guide the Lewis and Clark Expedition and the immigrants traveling on the Oregon Trail?

### Connection with Curriculum:

Learning level (4-5) Geography and History

### Objectives:

Students will:

- Analyze maps showing *Topography, Rivers, and Lakes*.
- Use the *Topography* map to locate physical features such as rivers, mountains, valleys, and mountain ranges.
- Identify a suitable route early explorers could have taken across Oregon from East to West.
- Create a map identifying their selected routes.

### National Geography Standards

**#2** - How to use mental maps to organize information about people places, and environments in a spatial context.

**#17** - How to apply geography to interpret the past.

### Oregon Geography Standards

**4.8.** Use geographical tools (e.g. maps, GIS, Google Earth) to identify absolute and relative locations and physical characteristics of places.

**4.9.** Explain the influence of Oregon and the Northwest's physical systems on humans, including Native Americans.

**5.10.** Describe how physical and political features influence events, movements, and adaptation to the environment.

### English Language Proficiency Standards for ELD:

*Comparing* – Students will use adjectives and conjunctions in comparative responses.

### Language Objectives:

*Function:* Comparing

*Form:* Adjectives and Conjunctions

*Beginning:* Responses can be single words or phrases to concrete comparison questions.

/

*Intermediate:* \_\_\_\_\_ was \_\_\_\_\_ than \_\_\_\_\_.

*Advanced:* \_\_\_\_\_ was \_\_\_\_\_ than \_\_\_\_\_, but \_\_\_\_\_ was \_\_\_\_\_ than \_\_\_\_\_.

**Targeted Language Skills:**

*Reading:* The students will be able to read the *Lewis and Clark Expedition* map to determine the best route for explorers.

*Writing:* Students will write a rationale explaining their reasons for choosing their route.

*Listening:* Students will actively listen to peers when performing the assigned group tasks.

*Speaking:* Students will actively participate in a classroom discussion.

**Vocabulary:**

topography

exploration

valleys

route

expedition

mountain ranges

navigate

rivers

explorers

mountains

**Materials:**

- Blank transparencies (one for each group and one for the teacher)
- Dry eraser markers
- Document camera or projector
- Blank outline map of Oregon (*map is available at [www.geog.pdx.edu/oga](http://www.geog.pdx.edu/oga)* )
- Students will need copies of the following maps from the *Student Atlas of Oregon* [www.studentatlasoforegon.pdx.edu](http://www.studentatlasoforegon.pdx.edu) :
  - *Topography*
  - *Lewis and Clark*
  - *Oregon Trail*
  - *Port*
  - *Rivers and Lakes*

**Presentation Steps:**

- Anticipatory Set:
  - Tell the students, “Today we are going to use our imaginations. We are all going to be early explorers traveling unknown territory.”
  - Hand out hard copies of the *Rivers and Lakes* map. In reference to the map, make the following statement, “The only thing we know about this territory is the locations of the rivers and lakes. Based on this information, what area would you want to explore and where might you want to live?”
- Divide students into partners or small groups.

- Address the following concepts with the students, making sure to write down suggested ideas for everyone to see on the board.
- What are rivers?
- Why are they important?
- How did the early explorers use them?
  - Possible answers:
    - Water source
    - Transportation
    - Food
- Introduce *Topography* map and the concept of elevation
  - What observations can you make about this map?
  - “What area of Oregon has the highest/lowest elevation?” Point out that the majority of the region east of the Cascade Mountains has a higher elevation than the region on the west side.
- Using a blank outline of Oregon, a transparency, and a dry erase marker, students will complete the following tasks:
  - Draw the outline of Oregon onto the transparency
  - Use the *Topography* and *Rivers and Lakes* maps to select the best route to travel from the east of Oregon to the west. Draw the route on the transparency.
  - In groups, students will compare their routes to the following maps: *The Lewis and Clark Expedition, 1804-1806, Oregon Trail, and Ports*.
  - Each group shares a brief explanation of their route.
- Closure:
  - Have a class discussion about their findings and return to the original question:
    - Why were rivers important to early explorers?

**Assessment:**

Students will be assessed using the maps they created.

**Adaptations:**

This lesson could be incorporated with a history lesson about the Oregon Trail or the Lewis and Clark expedition.

**Extensions:**

Students can make comparisons to the *Transportation* map and how people still follow routes similar to those used by the early explorers.

Original Authors: Brittney Byrne, Courtney Shimabuku, Chrisa Collins, and Brenda Victorio

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.



## Oregon Crops and Climate

### Overview:

In this lesson, students learn about the climate of specific regions in relation to farm products and fruit crops grown in Oregon. Students will compare five maps and find the relationship between the product and the climate. Students will record their findings on a chart and then proceed to create their own map combining the information they found. After they have created their own map, students will present their findings to the class.

### Geographic Question:

How does climate affect agricultural regions?

### Connection to Curriculum:

Learning Level (3-5) Geography/Social Studies

### Objectives:

After analyzing maps of agricultural products and climate, students will be able to create a map that shows the relationship between an agricultural product grown in regions of Oregon and its climate.

### National Geography Standard:

**#4** - The physical and human characteristics of places.

### Oregon Geography Standards:

**4.10.** Explain the influence of Oregon and the Northwest's physical systems on humans, including Native Americans.

**4.12.** Explain how people in Oregon have modified their environment and how the environment has influenced people's lives.

### English Language Proficiency Standards for ELD:

*Describing People, Places, and Things* – Students learn to understand and generate oral and written language with nouns, pronouns, and adjectives.

### Language Objectives:

*Function:* Describing people, places, and things

*Form:* Nouns, pronouns, adjectives

*Beginning:* \_\_\_\_\_ grows in a \_\_\_\_\_.

*Intermediate:* \_\_\_\_\_ has/have/had **or** is/are/were \_\_\_\_\_.

*Advanced:* \_\_\_\_\_, located in \_\_\_\_\_, has/have/had \_\_\_\_\_.  
In \_\_\_\_\_, \_\_\_\_\_ has/have/had \_\_\_\_\_.

### Target Language Skills:

*Reading:* Students will read and interpret information found on maps.

*Writing:* Students will write notes, answer written questions, and write a presentation.

*Listening:* Students will listen to presentations.

*Speaking:* Students will answer questions and present information orally.

### Key Vocabulary:

products	vineyard	annual
crops	orchard	key
climate	county	fruit
agriculture	coast	vegetable
regions	precipitation	
farm	average	

### Materials:

- From the *Student Atlas of Oregon* [www.studentatlasoforegon.pdx.edu](http://www.studentatlasoforegon.pdx.edu), students will need a hard copy of: *Counties and County Seats*
- Each student or group needs access to the following maps:
  - Average January Temperature*
  - Average July Temperature*
  - Average Annual Precipitation*
  - Farm Products*
  - Fruit Crops*
  - Major Crops*
- Blank outline map of the *Counties of Oregon* for each student available at: <http://geog.pdx.edu/oga/>
- Re-size map on copier to match *Temperature and Precipitation* maps from Student Atlas. Each group will need a transparency of map. Pencils, colored crayons, and markers
- Graphic Organizer (copy included)

### Presentation Steps:

1. Pre-teach vocabulary (a few words per day, prior to the lesson) using pictures or realia, or let students draw pictures to illustrate vocabulary. Post a vocabulary chart, with pictures and definitions, to be used as a resource throughout the lesson.
2. Ask students if they have ever been to a farm, vineyard, or orchard?
  - What was the weather like? Dry? Wet? Cold? Hot?
  - Share examples of fruits, vegetables, or animals found there, using realia or pictures.

3. Ask students to share experiences using Pair-Share-Quick Draw strategy.
4. Show students the *Major Crops*, *Farm Products* and *Fruit Crops* maps.
5. Ask students what they see and what they think the dots on the map mean. Share with partner. (We noticed..., We wonder..., We observed...)
6. Then show students the *Counties and County Seats* map.
  - a. Ask students what county they live in?
  - b. What counties are along the coast?
  - c. In which county is the capital of Oregon located?
7. Show students the *Average January Temperature*, *Average July Temperature*, and *Average Annual Precipitation* maps.
8. In small groups, have students analyze the maps to answer questions showing the relationship between crops, precipitation, and temperature.
9. Introduce the graphic organizer provided. On the graphic organizer and the *County* map, teacher fills out information for wheat and students follow the teacher's lead using the following maps: *Counties and County Seats*, *Major Crops*, *Average Annual Precipitation*, *Average January Temperature*, *Average July Temperature*.
  - a. Review what each dot represents.
  - b. Draw dots to represent where wheat is grown.
  - c. Identify the amount of annual precipitation for counties where most of the wheat is grown, and write that amount on the chart.
  - d. Create a new color key.
  - e. Identify the average January and July temperatures for these counties and write those figures on the chart.
10. Divide students into partners or small groups, and assign each group an agricultural product.
11. Review what students need to include in their map. See *Map Elements below*.

### **Assessment:**

#### *Formative Assessment*

- Give each group the five maps they are comparing and the graphic organizer.
- Have students complete and analyze data as a group.
- After students have finished the graphic organizer, give them each a blank map on which to transfer their data. Students create individual maps.
- After students have completed the Map Elements listed under Assessment, they will write a short narrative summary (1 or 2 sentences) and present their findings to the class.
- Teacher will observe student participation in discussions and critical analysis of their maps.

### *Summative Assessment*

- Students will create a map of the counties with an agricultural product, average January/July temperature, and annual precipitation. Use “Quiz, Quiz, Trade” strategy to share information learned from maps.

#### **Map Elements:**

Title

Colorful map

Easy-to-understand key. Key includes:

- dot for specific crop
- color labeled for precipitation

Include range of high and low temperatures for January and July near where the crop is grown

Counties labeled

Map is visually appealing, neat, and easy to read

#### **Extensions:**

Students could take a field trip to a local farm.

Students could track the path a product takes to its destination.

Research other products that are grown in Oregon.

Consider using a Wheat Kit, available from Agriculture in the Classroom (Oregon State University).

Survey foods from home that are grown in Oregon and graph results.

Read *Apples to Oregon* by Deborah Hopkinson.

Original Authors: Jacy Nerz and Mary Cordle  
The final editing and adaptations for an ELL classroom were completed by the OGA  
Spanish Student Atlas of Oregon Task Force 2011.



**Product**

Name: \_\_\_\_\_

Names of group members: \_\_\_\_\_

---

<b>List 5 Counties where your product is grown.</b>	<b>Average January Temperature</b>	<b>Average July Temperature</b>	<b>Average annual precipitation</b>

**Producto**

Nombre: \_\_\_\_\_

Nombres de los miembros del grupo: \_\_\_\_\_

---

<b>Nombra 5 condados en donde se siembra el producto</b>	<b>Temperatura promedio en enero</b>	<b>Temperatura promedio en julio</b>	<b>Promedio de precipitación anual</b>



## Relocate to Oregon!

### Overview:

In this lesson, students will create advertisements designed to encourage people to relocate/move to various parts of Oregon. This lesson could be used as an end of unit activity/assessment about the state of Oregon.

### Essential Question:

How do geographical regions and physical characteristics found throughout Oregon influence communities?

### Connection with Curriculum:

Learning level (3-5) Geography, History, Economics

### Objectives:

- After researching important geographic, demographic and historical characteristics of a specific Oregon region, students will identify at least 5 characteristics which best define the positive traits of the region.
- Working in groups, students will create an advertisement designed to encourage people to relocate/move to that region of the state.

### National Geography Standards:

**#4** - The physical and human characteristics of places.

**#18** - How to apply geography to interpret the present and plan for the future.

### Oregon Geography and History Standards:

**4.9.** Explain the influence of Oregon and the Northwest's physical systems on humans, including Native Americans.

**4.12.** Explain how people in Oregon have modified their environment and how the environment has influenced people's lives.

**3.4.** Describe local communities and regions past and present.

### English Language Proficiency Standards for ELD:

*Describing location* - Students learn to understand and generate oral and written language with prepositional phrases.

### Language Objectives:

*Function:* Describing Location

*Form:* Prepositional phrases

*Beginning:* \_\_\_\_\_ is in/off/out/on/inside/outside\_\_\_\_\_.

*Intermediate:* The \_\_\_\_\_ is \_\_\_\_\_ in front of/behind/next to \_\_\_\_\_.

*Advanced:* \_\_\_\_\_ is beneath/within \_\_\_\_\_.

### Targeted Language Skills:

*Reading:* Students will read brochures promoting different places in Oregon.

*Writing:* Students will list characteristics of a region that will encourage people to relocate to that area.

*Speaking:* Students will practice a variety of structured oral language routines to describe characteristics of a place, the purpose of the brochure, and information to include in their advertisement.

*Listening:* Students will listen and participate in class discussion about communities.

**Vocabulary:**

region	place	community
landforms	landmarks	culture
vegetation	history	brochure
landscape	natural resources	lifestyle
climate	recreation	economy
wildlife	population	advertisement
characteristic	relocate	

**Materials:**

- *Student Atlas of Oregon* (<http://studentatlasoforegon.pdx.edu/index.html>)
- Oregon.gov kids page [http://www.oregon.gov/kids\\_korner.shtml](http://www.oregon.gov/kids_korner.shtml)
- The Oregon Blue Book <http://bluebook.state.or.us/>
- *Travel Oregon Kids Guide Online* <http://kids.traveloregon.com>
- Computer access, computer lab
- Various brochures for examples
- Student Research Notebook for each student. Students will record their notes and findings in the notebook prior to creating their advertisement.
- Materials to create print advertisement, such as:
  - Paper
  - Colored Pencils
  - Markers
  - Paint
  - Tape
  - Glue

**Presentation Steps:**

1. Begin the lesson by discussing things that students like about their own community. "Community" may be defined as their city/town, neighborhood, school, classroom, etc... On the board, make a list of the positive characteristics about their community.
2. Ask students what characteristics they might highlight if they were trying to encourage someone to come and live in their community. Show the students examples of public relations brochures for cities and towns - brochures that encourage people to move to that city/state. Note that the brochures use information about the city's location, history, culture, climate, lifestyle, economy, etc. in painting a favorable picture of the location.
3. Hand out brochures to students. Allow them time to look through and discuss the brochures.
4. Pose questions to the group (utilize numbered heads, think-pair-share, turn and talk, and other structured oral language practice routines):
  - What characteristics do they notice about the brochures?
  - What is the purpose of a brochure?
  - If they were going to make an advertisement to encourage people to move to their community, what information might they include in the advertisement? Why?

5. Divide students into 7 groups. Each group is assigned an area of the state, as follows:
  - Portland Metro Area: Includes Portland Metro Area
  - Oregon Coast: Includes entire coastline from Astoria to Brookings
  - Willamette Valley: Includes central Willamette Valley including Salem and Eugene
  - Southern Oregon: Includes Roseburg, Medford, Ashland, Klamath Falls
  - Central Oregon: Includes Bend, Redmond, Madras area
  - Eastern Oregon: Includes Pendleton, La Grande, Ontario and Burns
  - Columbia Gorge: Includes Cascade Locks, The Dalles, Hood River
6. Explain that each group will be creating an advertisement encouraging people to move to “their” region. In order to properly advertise their region, explain that students will need to know something about the region’s population, climate, economy, lifestyle, history, landforms, landmarks, recreation, etc.
7. Provide students with a resource file that they can use in conducting their research. Explain the resources in the file as follows:
  - *Student Atlas of Oregon*, both hard copy and online versions.  
Explain that the atlas contains maps detailing a variety of information about the state. Some maps talk about the landscape/topography, other maps talk about population density, etc...
  - Oregon.gov Kids Page, [http://www.oregon.gov/kids\\_korner.shtml](http://www.oregon.gov/kids_korner.shtml)
  - The Oregon Blue Book, <http://bluebook.state.or.us/>
  - *Travel Oregon Kids Guide Online*, <http://kids.traveloregon.com>
  - Students will be provided a research notebook to help them organize their research notes and findings (see attached).

**Assessment:**

- Students assess their research notebooks using the rubric provided.
- For individual assessment, students will turn in their research notebooks.
- The groups will present their advertisement posters to the class, explaining why the posters include particular information, and how they selected which information was most important to include.

**Extensions:**

- Students may create a PowerPoint highlighting the important aspects of their region.
- Students may create an ‘anti-advertisement’ outlining reasons why one might not want to move to their region.
- Students may compare two regions, making a persuasive argument as to why someone might want to move to one region versus the other.

Excellent Work!	Good Work!	Needs Improvement
In my research notebook I made the number of notes requested in each section. Sometimes I made additional notes!	In my research notebook, I usually made the number of notes requested in each section. Sometimes I made additional notes, but sometimes I did not make the number of notes requested.	I was not able to make the requested number of notes in several sections of my research notebook.
I actively participated in my group and contributed many ideas to our advertising poster.	I participated in my group and contributed some ideas to our advertising poster.	I did not participate very much in my group. The other group members did most of the work on our advertising poster.
The items that we selected for inclusion in our advertising poster represented positive community attributes from at least four different categories, as defined in my research notebook.	The items that we selected for inclusion in our advertising poster represented positive community attributes from at least three different categories, as defined in my research notebook.	The items that we selected for inclusion in our advertising poster represented positive community attributes from two or fewer different categories, as defined in my research notebook.
I contributed to my group's oral presentation by helping to describe why we selected the information to include in the advertisement poster.	I contributed to my group's oral presentation, but I am not entirely certain why all of the items on the advertisement poster were selected.	I did not participate in my group's oral presentation preparation, or delivery, and did not help to describe why the information in our advertisement poster was selected.

**Resources:**

Bulman, T. L., & Rice, G. H. (2008). *Student Atlas of Oregon*. Retrieved February 27, 2009, from Oregon Geographic Alliance Website:

<http://studentatlasoforegon.pdx.edu/index.html>

Oregon State Archives, Initials. (2009). *Oregon Blue Book*. Retrieved from

<http://bluebook.state.or.us/>.

*Oregon.gov kids' corner*. (2009, March 27). Retrieved from

[http://www.oregon.gov/kids\\_korner.shtml](http://www.oregon.gov/kids_korner.shtml).

*Travel Oregon Kids Guide Online*. (2009). Retrieved <http://kids.traveloregon.com>.

**VERY IMPORTANT: See the Student Research Notebook below**

Original Author: Katherine Bodi

The final editing and adaptations for an ELL classroom were completed by the OGA Spanish Student Atlas of Oregon Task Force 2011.

## **Student Research Notebook**

In order to create an advertisement about your region, you must first learn about your region's characteristics. This research notebook may be used to guide your investigation. Use the maps in the *Student Atlas of Oregon* to help you find information about your region.

As you research your region, you will attempt to locate information on the following:

- My region's physical landscape and climate
- My region's natural resources – including vegetation and wildlife
- My region's population
- My region's economy and transportation
- My region's recreational opportunities
- Interesting facts about my region



Name: \_\_\_\_\_

## My Region's Physical Landscape and Climate



*Things to consider when performing this research:*

Is my region mountainous?

Is my region coastal?

Is my region in danger from natural disasters?

Is my region rainy or dry?

Does my region have waterways like rivers?

Does my region have lakes?

Make at least 3 notes regarding the physical landscape and climate of your region.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

## My Region's Natural Resources: Vegetation and Wildlife



*Things to consider when performing this research:*

Is my region forested?

Does my region have mostly privately owned land or publicly owned land?

Does my region support salmon harvests?

Does my region contain mineral deposits?

Does my region produce energy using wind, water, or other resources?

Make at least 3 notes regarding the natural resources, vegetation, and wildlife of your region.

1. \_\_\_\_\_

\_\_\_\_\_

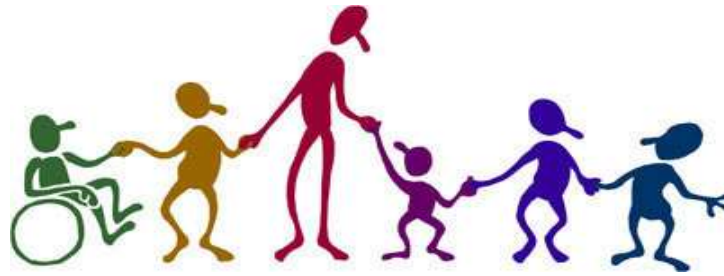
2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

## My Region's Population



*Things to consider when performing this research:*

Is my region heavily populated?

Do we know anything about the age of my region's population?

Make at least 2 notes regarding the population of your region.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

## My Region's Economy and Transportation

*Things to consider when performing this research:*

Does my region have farms or ranches?

What crops are grown in my region?

What farm products are raised in my region?

Does my region have roads, railroads, seaports, or airports to help people and things get in and out of my region?

Make at least 3 notes about the economy and transportation of your region.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

## Interesting Facts about My Region

*Things to consider when performing this research:*

Is my region home to any historical landmarks?

Did the Oregon Trail pass through my region?

Are there popular tourist destinations in my region like campgrounds, lakes, or other points of interest?

Note at least 3 interesting facts about your region.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

**Positive Things about My Region**



<b>This is a positive thing about my region</b>	<b>I think it is a positive thing because...</b>

## **Student Scoring Checklist**

When you are working on your student notebook and group poster, consider the following list that will be used to grade your work.

### **Student Notebook**

- I have made the number of notes asked for in each section of my notebook.
- I have identified many positive things about my region, including things from at least three of the categories in my notebook.
- I have explained why I think the positive things I selected are positive.

### **Group Poster**

- I actively participated in my group when we worked on our advertising poster.
- I helped my group plan and/or deliver our oral presentation to the class, explaining why we selected the information to include in our poster.

## **Cuaderno de investigación del estudiante**

Para poder crear un anuncio sobre tu región, debes primero aprender las características de la región. Este cuaderno de investigación debe usarse como guía para tu investigación. Usa los mapas del *Atlas de Oregón para estudiantes* para ayudarte a encontrar información sobre tu región.

Al investigar tu región trata de encontrar información sobre los siguientes puntos:

- Los paisajes y el clima de mi región
- Recursos naturales de mi región incluyendo la vegetación y la vida salvaje
- La población de mi región
- La economía y el transporte en mi región
- Las oportunidades recreativas de mi región
- Los hechos interesantes de mi región



Nombre: \_\_\_\_\_

## Los paisajes y el clima de mi región



*Puntos que considerar al hacer esta investigación:*

- ¿Mi región es montañosa?
- ¿Mi región tiene costa?
- ¿Mi región tiene peligros de desastres naturales?
- ¿Mi región es seca o llueve mucho?
- ¿Mi región tiene ríos o canales?
- ¿Mi región tiene lagos?

Haz por lo menos 3 notas sobre los paisajes y el clima de tu región.

1. \_\_\_\_\_

\_\_\_\_\_

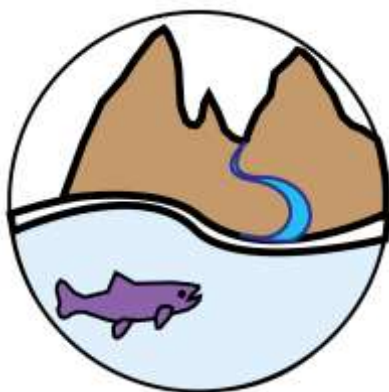
2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

## Recursos naturales de mí región incluyendo la vegetación y la vida salvaje



*Puntos que considerar al hacer esta investigación:*

- ¿Mi región es boscosa?
- ¿Mi región tiene la mayoría de las tierras como propiedad pública o privada?
- ¿Mi región apoya la pesca de salmón?
- ¿Mi región tiene depósitos minerales?
- ¿Mi región produce energía usando el viento, el agua u otro recurso?

Haz por lo menos 3 notas sobre los recursos naturales, la vegetación y la vida salvaje de tu región.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

## La población en mi región



*Puntos que considerar al hacer esta investigación:*

¿Es mi región muy poblada?

¿Sabemos algo sobre las edades de la población en mi región?

Haz por lo menos 2 notas sobre la población en tu región.

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

## La economía y el transporte de mi región

*Puntos que considerar al hacer esta investigación:*

¿Mi región tiene granjas o ranchos?

¿Qué cultivos crecen en mi región?

¿Que productos de granja se producen en mi región?

¿En mi región hay carreteras, ferrocarriles, puertos o aeropuertos para ayudar a las personas a llevar y traer productos a mi región?

Haz por lo menos 3 notas sobre la economía y el transporte en tu región.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

## Hechos interesantes sobre mi región

*Puntos que considerar al hacer esta investigación:*

¿Mi región tiene algún hecho o edificio histórico?

¿La Ruta de Oregón pasa por mi región?

¿En mi región hay destinos turísticos como lugares para acampar, lagos u otros puntos de interés?

Haz por lo menos 3 notas sobre hechos interesantes de tu región.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

## Puntos positivos sobre mi region



Esto es un punto positivo de mi región	Creo que esto es un punto positivo porque...

## **Lista para revisar y calificar del estudiante**

Cuando estés trabajando en tu cuaderno y en el póster de grupo, considera la siguiente lista que estará usado para calificar tu trabajo.

### **Cuaderno de estudiante**

- He hecho todas las anotaciones que me piden en cada sección de mi cuaderno.
- He identificado muchos aspectos positivos sobre mi región, incluyendo por lo menos tres de las categorías que están en mi cuaderno.
- He explicado por qué pienso que los puntos que escogí son positivos.

### **Póster de grupo**

- He participado activamente en mi grupo cuando trabajamos en el póster.
- Ayude a mi grupo a planear y/o a dar la presentación oral enfrente de la clase explicando por qué seleccionamos la información que usamos en nuestro póster.