

## Geo What? Geomorphology!

**Overview:** Students will be introduced to the 5 regions of the United States and geomorphology; the study of landforms. They will then be able to define and identify 16 different landforms (bay, coast, delta, desert, gulf, island, lake, mountain, mountain valley, mouth of a river, ocean, peninsula, plains, plateau, river, river valley.) This lesson is recommended for the fall because it sets the stage for further learning in geography.

**Standard:** The student will identify physical characteristics of places and use this knowledge to define regions, their relationships among regions, and their patterns of change.

**Benchmark:** 1. Students will describe the major physical features of the United States and the regions of the world they study.

**Objectives:** 1. Students will label and define the 5 regions of the U.S.  
2. Students will identify and depict 16 different landforms found in the U.S.

**Grade level:** 4th grade

**Subject:** Social Studies, Language Arts

**Time:** Ten 50 minute class periods

**Prerequisites:** -Some map reading skills (see p.5 for TODALS)  
-Parent letter sent home with information regarding landform model - date of project and materials required from home

**Required Materials:** Social Studies grade level textbook or other reference materials such as the atlas, nonfiction books with information on landforms at a variety of reading levels, maps of the United States (see p.6), physiographic diagram, chart paper, white construction paper, small strips of paper for flags, toothpicks, tempera or latex paint, glue, scissors, colored pencils, black markers, internet access

**Web sites:** <http://www.nationalgeographic.com>  
<http://www.enchantedlearning.com>  
<http://www.geocities.com>  
<http://www.askjeeves.com>

### Suggested Procedure:

**Day 1:** The class is divided into five groups. Each group is given a map with a region highlighted (Northeast, Midwest, Southeast, Southwest, West) but not labeled. Each group is given the assignment to label the region based on what they know, list words that define the

region, and identify features of the region. These features may include history, geography, climate, and traditions. This information is then displayed on chart paper and shared with the class. During this time, the teacher should continue the discussion by asking geographic questions such as: Where is it? Why is it there? What is important about its location? After each group has shared, others may add information to the charts and the teacher will add the label indicated above.

**Day 2:** The teacher writes “geomorphology” on the board and encourages the class to look at parts of the word to determine its meaning. Explain that there are a variety of landforms within each region and we will continue with a study of landforms, or geomorphology.

Brainstorm different landforms as a class and make a list on the board. The teacher should add words if necessary to be sure all 16 are included. Next the students should copy the list in their journal and work in small groups to categorize the landforms. Allow time for each group to share their categories and their explanation for their process of categorizing. The teacher could also have the landform terms written on construction paper and give a set of 16 to each group to manipulate to make the categories. One set could then be placed on the board or wall.

The teacher should give a brief overview of the final project and send the parent letter home today.

**Day 3:** Begin by reviewing information from Days 1 and 2. Next use the SQ3R strategy to read the appropriate pages in the student textbook and/or other reference sources. Students should read the text independently. They should use sticky notes to indicate with a “?” text that is confusing to them. After the students have completed reading, the teacher may address the ?s individually or as a whole group.

**Day 4:** The students should look back at their categorized words from Day 2. They should consider whether or not they would recategorize the words and discuss this with a partner. Suggest categorizing the landform terms into two groups- land and water. Do this together if it has not been done already. Keep this information displayed on a chart, or add to the word wall, to refer to throughout the study.

Next the teacher should explain the flashcards assignment. Each student should use information from a variety of resources such as the text, nonfiction books, encyclopedias, and bookmarked internet sites, to make a set of flashcards. Each flashcard should include a label, a picture, and the definition of each landform.

**Day 5:** Allow time to work on flashcards. The teacher should give help, feedback and praise.

**Day 6:** Allow time to work on flashcards.

**Day 7:** Students should use flashcards to quiz each other on the 16 landforms. Encourage them to use them at home to teach and quiz family members also.

**Day 8:** As a culminating project, students should bring a piece of cardboard and salt dough to school to make a model which depicts each landform. (The teacher may choose to purchase the boards. Building supply stores will provide cuts of press board for a reasonable price.)

Students should plan the model by making a drawing in their journal first. They should check to be sure all 16 landforms are included and depicted accurately. Next they should make flags with paper and toothpicks to be used to identify each landform on their completed model.

**Day 9:** Today students get to create! This activity could be done on tables outside if the weather is cooperative. It can be messy! They should begin by covering their board with a thin layer of white glue. Students then form dough to create each landform on their model. Explain that the dough forms the land and the water will be the cardboard, or wood, which they will later paint blue. Then they should add the toothpick flags to identify each landform.

**Day 10:** (Today’s activity should be scheduled several days after Day 9 to allow time for models to dry. The teacher may also want to plan today’s activity before a short break to allow plenty of time for the paint to dry.) The students paint the maps using the appropriate colors: green- land, blue- water, brown, orange, and yellow- elevation.

Display models in a common area for younger students to view.

**Differentiation:** I will team with the ELL teacher to have the main concepts and vocabulary reinforced in their ELL class. I will also team with the Title 1 teacher to select additional reading materials at the appropriate reading level to be read and discussed during their Title 1 Reading class time. I will work with students in small groups and individually as needed. Reading materials at a variety of reading levels will be available. Students will complete some of the work in small groups.

Extension activity: Those students who would benefit from an additional challenging activity should work together to create a “Where in the World?” chart. In one column they should list each of the landforms, in the second column they should write where in the world one could see that landform, and in the third column they should write interesting facts about each specific landform. Additional types of landforms could also be added to the chart. This chart should be displayed for the other students to read.

Example:      Mountain      Mt. Everest in the Himalayas      8,848 m

**Assessment:** The salt map project (Day 10) will be used as the final assessment. All 16 landforms must be included, labeled, and depicted accurately (see rubric on p.7).

**Credits:** Denise Kyro  
Southview Elementary, Apple Valley  
4<sup>th</sup> Grade

**Title**

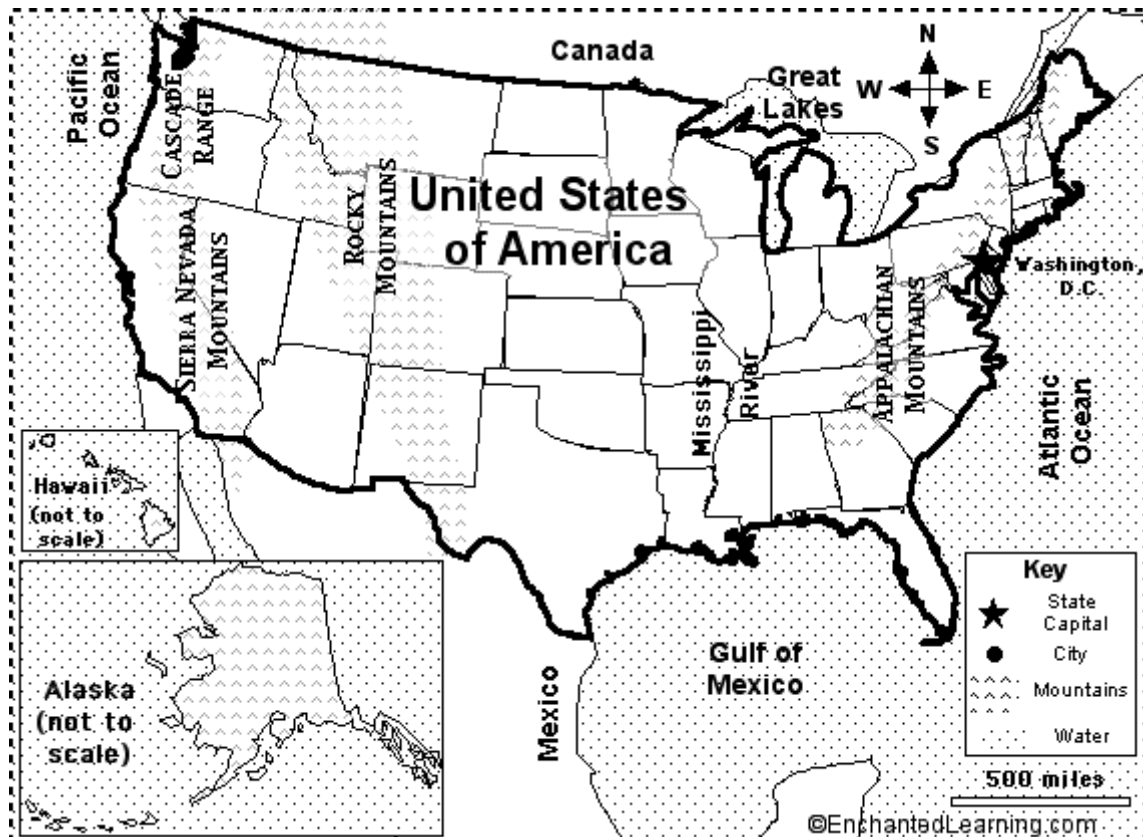
**Orientation**

**Date**

**Author**

**Legend / Key**

**Source**



Rubric for scoring flashcards:

<b>Landform</b>	<b><u>Spelling</u> Term: 1pt. Definition: 1 pt.</b>	<b><u>Accuracy</u> Definition: 1 pt. Drawing: 1pt.</b>	<b><u>Neatness</u> Term: 1 pt. Definition: 1 pt. Drawing: 1 pt.</b>
Bay			
Coast			
Delta			
Desert			
Gulf			
Island			
Lake			
Mountain			
Mountain Valley			
Mouth of a River			
Ocean			
Peninsula			
Plains			
Plateau			
River			
River Valley			
	<b>/32</b>	<b>/32</b>	<b>/48</b>
			<b>Total /112</b>

# FOURTH GRADE

## SOCIAL STUDIES- SALT MAPS

Our class has been learning many terms used to describe various forms of land and water. The students will apply this knowledge to our construction of salt maps on Friday, November 5.

The following is a recipe for the salt dough and a list of other materials needed for the salt map project. Please help your child mix the dough at home and bring the dough to school in a sealed plastic bag on **Thursday, November 4**. Please send the cardboard and toothpicks to school on Thursday also.

### **Materials:**

9" x 12" sturdy corrugated cardboard

20 toothpicks

Salt dough mixture:

1 cup flour

1/2 cup salt

3 teaspoons powdered alum (found in the spice section of a grocery store)

enough water to make a thick pie dough-like mixture

**Thanks for your help!**