

V. Lesson Plans

2. Making a Relief Map

Overview

Students will be introduced to the geography of the Andes region and the impact of the Andes Mountains on the region's climate and weather.

Materials

A large (2 feet by 3 feet) map of South America without country labels. A small physical map of South America showing elevations and countries. (See for example, *World Book* terrain and political maps of South America. See Additional Resources to order a large National Geographic map of South America.) Several large containers of play dough or modeling clay (4 to 5 different colors). Toothpicks, paper, cellophane tape.

Procedures

Inquiry question

How do the Andes Mountains affect South America's climate and weather? What is the impact of the Peru Current on western South America's climate and weather? Marine resources?

1. *Introduction:* Review the homework reading. Stress the impact of the Andes Mountains on the region's weather and the effect of the Peru Current on rainfall.
2. Explain that the class will be creating a relief map of South America. Show the class the physical map of South America. Have students label the countries of South America on the 2 by 3 foot map.
3. Now have them create a three-dimensional map of South America with play dough or modeling clay. The map should show:
 - a) the Andes Mountain chain;
 - b) the small coastal desert bordering the Pacific Ocean;
 - c) the Amazonian basin to the east of the Andes; and
 - d) the location of Cuzco and Machu Picchu.

Different colors should be used to approximate different elevations. Have them label countries that are covered by the modeling clay with toothpick labels. Next, have them draw the Peru Current along the Pacific Coast.

4. *Discussion:* Return to the inquiry question to discuss how the Andes Mountains affect the climate and weather of western South America and the impact of the Peru Current on rainfall and marine resources.
5. *Assessment:* Assess each student's participation in the map activity and subsequent class discussion.
6. *Homework:* Have students read in the background article, "The Inca: From Village to Empire" (Section IV), Section 4, The Vertical Economy, and Section 5, From Hunter to Farmer (pages 9 to 11) and complete the word match exercise (page 66) for tomorrow. (Optional: Tell students they will have a quiz on vocabulary.)