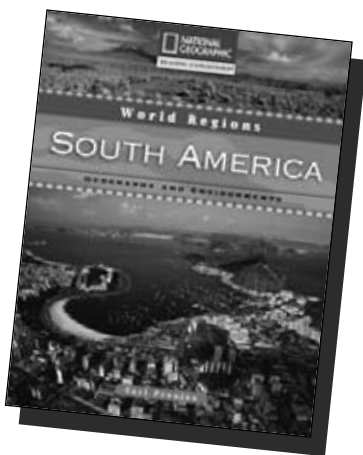


Overview

South America: Geography and Environments

By Carl Proujan



Summary

This book explores four geographic regions of South America: the Andes Mountains, the Amazon Basin, the Pampas, and the South and West Coasts. Readers will learn about unique natural features of each region, including climate, plant and animal life, and landforms. The book also looks at the residents of each region and how their lives and work draw on and interact with the land. Students will be introduced to the conflicts that can arise between human development and the conservation of natural resources. In areas such as the Amazon Rain Forest and the Pampas of Argentina, human impacts are rapidly changing environments. Students will learn about these changes and about those who have plans to try and protect the land.

Background

South America is the fourth-largest continent and is home to about 347 million people from many ethnic groups who live in many contrasting locations and climates. South America is connected to North America by the Isthmus of Panama. South America comprises three topographical zones—the mountains in the west along the Pacific, the lowlands in the interior of the continent, and the continental shield in the east. Those who live in the mountains are used to living at high elevations with frequently cold temperatures. The lowlands inhabitants face the challenge of tropical heat and the problem of balancing the needs of a growing population with the depletion of valuable natural resources like forests. The highlands of Brazil are home to farmers, cattle ranchers, and miners.

Learning Objectives

Social Studies/Geography

- Examine the interactions between humans and their environments
- Interpret representations of Earth, such as maps
- Locate and describe landforms and features such as mountains, plateaus, rain forests, and deserts
- Describe physical processes such as seasons, climate, and weather, and identify geographic patterns associated with them
- Explore causes, consequences, and possible solutions to global issues, such as pollution and endangered species

Process Skills

- Skill Focus**
 - Interpret satellite images
- Supporting Skills**
 - Interpret visual data
 - Compare and contrast
 - Generalize

Reading Skills

- Identify main ideas and details
- Distinguish fact from opinion
- Compare and contrast
- Use context clues
- Recognize cause-and-effect relationships
- Use graphics to aid comprehension

Focus on Content Area Reading

Activate Prior Knowledge

Present a chart outline such as the one below and have students brainstorm what they already know about South America to fill in the blanks on the chart.



Meeting Individual Needs

For specific strategies on meeting individual needs, see pages 80–85.

Chapter 1: Andes

Before Reading

Preview & Set Purpose

Ask students if they have ever visited an area with large mountains. Did they have to do anything differently in

these mountains, such as wear different shoes, carry extra clothing or equipment, and so on? Give students a chance to look through the chapter.

Help students set a purpose for reading. Ask:

How do you think life in the Andes might be similar to or different from your life?



Vocabulary Strategy: Use Context Clues

Activity Master, page 76

Tell students that sometimes words are defined directly in the text, as with *volcano* (page 15) and *earthquake* (page 15). In other cases, the reader can figure out a word's meaning from its context, or

the words surrounding it. Have students complete the Activity Master by checking the context of the word, looking it up in a dictionary if necessary, and then writing a sentence that relates the word to the concept of Earth's layers.

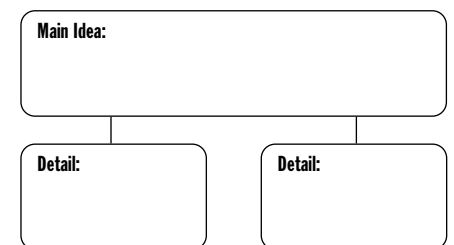
During Reading

Read Strategically:

Identify Main Ideas and Details

Have students use a diagram like the one below to identify and organize main ideas and details as they read. Ask students to find one main idea and two details each about the Andes Mountains, volcanoes, and climate zones. Remind students that headings and opening sentences can be helpful in finding the main ideas.

Benefits and Challenges of Living in Different Regions of South America	Benefits	Challenges
Mountains		
Grasslands		
Rain Forests		
Coastal Deserts		



Correlation to National Standards

Writing/Communication Skills

- Write a journal entry
- Write an essay
- Write for a specific audience
- Conduct research
- Use the writing process
- Debate an issue
- Create and publish a children's story

Reading/Language Arts

- Read to become informed about the needs of society
- Apply a wide range of strategies to comprehend texts
- Use written and spoken language for learning
- Use the writing process
- Conduct research

Social Studies

- Culture
- Time, Continuity, & Change
- People, Places, & Environments
- Science, Technology, & Society
- Global Connections

Geography

- The World in Spatial Terms
- Places and Regions
- Physical Systems
- Human Systems
- Environment and Society
- The Uses of Geography

Focus on Content Area Reading (continued)

After Reading

Respond

Initiate a class discussion to assess reading comprehension. Ask:

What do volcanoes and earthquakes have in common? How are they different?
(See pages 14–15.)

(compare and contrast)

Why do you think scientists have named four climate zones in the Andes?
(See pages 18–19.)

(make inferences)

Why do you think it might be difficult for people to live in the tierra helada?
(See pages 18–21.)

(draw conclusions)

Writing:

Write a Journal Entry

Ask students to reread the observations of Johan Reinhard on pages 16–17. Then read students the scenario below and have them write a short journal entry from that point of view. In the entry, students can include the who, what, where, why, and when of their imagined experience.

- You are traveling to the Andes for the first time. Write an entry in your travel journal describing what you see. Use specific names of lakes or mountains. Try to describe the weather where you are traveling and what it feels like to be there.

Communicating:

Read Journal Entries Aloud

Students can read their journal entries aloud in small groups. Students can listen with their eyes closed, envisioning the journey the author describes. Afterwards, have each listener write two compliments and one suggestion for the writer. Students can then revise their writing based on the suggestions.

Chapter 2: Amazon Basin

Before Reading

Preview & Set Purpose

Give students time to preview the chapter, paying attention to headings, photographs, charts, graphs, and captions. Ask:

What kinds of lives do you think the people live in this region?

To help students set a purpose for reading, ask:

What do you want to learn about the Amazon River and the rain forest as you read?

Vocabulary Strategy:

Use Context Clues

Have students work in pairs or individually to find meanings from context. Students can check the accuracy of their definitions using the glossary.

During Reading

Read Strategically: Distinguish Fact from Opinion

Activity Master, page 77

As students read the chapter, have them use the Activity Master as a study guide to help them distinguish fact from opinion. As students read, they should identify each statement on the Activity Master as fact or opinion. Students should finish the activity by writing other facts found in the chapter and other opinions. Remind students that facts can be proven to be true or false. Opinions describe beliefs or feelings.

After Reading

Respond

Initiate a class discussion to assess reading comprehension. Ask:

Why is there so much rainfall in the Amazon Basin? (See page 25.) **(draw conclusions)**

What effect might destruction of the rain forest have on modern medicine? (See page 30.) **(cause and effect)**

What might happen to the rain forest if people all over the world grew to like the many exotic fruits that grow there? (See page 37.) **(draw conclusions)**

Writing and Research:

Write an Essay

For this activity, students will need to access outside source material, either through the

Focus on Content Area Reading (continued)

Internet or the library. Working alone or in small groups, students should choose a way that people are affecting, or trying to help, the Amazon Rain Forest. Suggest that students use encyclopedias, magazine articles such as those listed in this chapter, and Web resources to get information.

Communicating: **Share Information**

When the essays are complete, have students exchange essays, question each other, and discuss ways in which the life forms they chose are similar or different. Finally, ask students to work together to compile all of the essays into a class book. The class should decide together how to organize the essays and how to title the book.

Chapter 3: Pampas

Before Reading

Preview & Set Purpose

Have students look at the photographs in the chapter. Ask:

Based on the pictures, what kind of place do you think the Pampas is? Does it contain cities, fields, or both? What kind of work do people do there? What kinds of animals live there?

To help students set a purpose for reading, ask:

You have read about the mountains and the rain forest. How do you predict the Pampas will be different from those places?

Vocabulary Strategy:

Analyze Concept Words

Turn to pages 43 and 47 and point out the words in boldface: *fertile* and *conservationists*. Using a concept web with students, develop an understanding of the word. After reading the chapter, return to the board and have students revise their definitions and use each word in a sentence.

During Reading

Strategy Tip: Use illustrations to aid comprehension

If students have difficulty understanding the selection, encourage them to refer to the images in the book as they read, asking themselves how the illustrations help explain the text.

Read Strategically:

Compare and Contrast

Graphic Organizer, page 108

Have students use the Venn Diagram Graphic Organizer as a way to compare and contrast the humid pampas and the dry pampas. Remind students that things the two places have in common should be written in the space where the two circles overlap. Students may complete a second Venn Diagram to compare and contrast the cities and plains on the Pampas.

After Reading

Respond

Initiate a class discussion to assess reading comprehension.

Ask:

What kinds of wildlife might you find in the Pampas?
(See pages 40–41.)

(summarize)

Writing: **Write a Travel Guide** Activity Master, page 78

Have students complete the Activity Master to prepare for writing a travel guide about the Pampas. Students can use the chapter as a resource, or expand their research to other sources. After answering the questions, students can work alone or in groups to write the travel guide.

Communicating: **Debate an Issue**

Have students engage in a debate about the good (pros) and bad (cons) sides to developing the Pampas. Students not on either team should take notes on the reasons presented, ask questions, and discuss how well each group presented its argument. Before and after the debate, the students can take a class vote on the positions to see if the debate changed anyone's mind.

Students debating should

- ✓ Speak clearly at an appropriate speed and volume.
- ✓ Make eye contact with listeners.
- ✓ Make main idea clear and support with reasons.
- ✓ Wait patiently for their turn.

Focus on Content Area Reading (continued)

- ✓ Listen closely to the other group's presentation and respond appropriately.

Students observing and listening should

- ✓ Ask questions of the students presenting the arguments.
- ✓ Evaluate the effectiveness of the presentations by both sides.
- ✓ Be able to state and support their own ideas on the subject.
- ✓ Listen politely.

Chapter 4: Coasts

Before Reading

Preview & Set Purpose

Give students time to preview the chapter, paying special attention to headings, maps, photographs, and graphics. Ask:

How do you think this region might be different from the other three you have read about?

Have students state a purpose for reading based on something they previewed in the chapter. Model a question such as:
What is the weather condition called El Niño?

Vocabulary Strategy: Relate Words

Direct students' attention to the word *latitude* on page 50 and the term *Humboldt Current* on page 54. Explain that both words relate to the climate in different parts of coastal South America. Have students use the

same format they used on the Activity Master on page 76 to compare the meaning they derive from context clues to the meaning from the glossary.

During Reading

Read Strategically:

Use Outlines to Organize Ideas

Have students write outlines in their notebooks to help organize ideas while reading. Explain to students that the roman numerals (**I**) should reflect a large heading or main idea of the chapter. Letter (**A**) should reflect a subhead or explanatory idea. Arabic numerals (**1.**) should list details.

After Reading

Respond

Initiate a class discussion to assess reading comprehension. Ask:

Describe the Atacama Desert.
(See page 54.) (**retell**)

Why is it hard to find trees in Patagonia? (See page 57.)
(**make inferences**)

Writing: Write a Story

Have students work individually or in pairs to write a story involving Patagonia or the Atacama Desert that would help the reader better understand these environments. Some possible scenarios:

- You are an early 1900s resident of Patagonia and you have just struck oil!

- You are a traveler arriving in Patagonia for the first time.
- Your small boat is stranded along South America's west coast in a remote area of the Atacama Desert.

Communicating: Publishing

Students can read their stories aloud to the class. If the students have written the story in pairs, they should plan how to divide the reading between them and practice together.

- ✓ Students reading aloud should speak clearly at an appropriate speed and volume and make eye contact with listeners
- ✓ Listeners should identify the main idea, listen politely, and ask questions when the presentation is finished.

Students can create a children's book from their story. Their book should include maps and illustrations to help the reader understand the location and setting of the story, and should show landforms and distances from place to place. Consider having the books displayed in the school library.

Extend and Assess

Focus on Geography

 **Think Geographically:**
Read a Satellite Image
Activity Master, page 79

Have students use the photo on pages 60–61 to complete the Activity Master. Students should label and color code the outline map to show natural features, cities, and farmland. They should also create a map key. Then use the information from the satellite image and completed map to answer the questions.

Assessment Options

Questions

Use the following questions during individual conferences, or ask students to write the answers in their notebooks:

- 1 What four geographic regions of South America are featured in the book?
- 2 What major factor affects climate in the Andes?
- 3 In what ways do people benefit from the Amazon Rain Forest?
- 4 What are two different points of view on clearing the Pampas to grow crops?
- 5 How does the Humboldt Current affect Atacama Desert climate?

Assessment Activity

Have students write the script for a television documentary on South America. Students should include at least four topics listed below—one from each region—and provide supporting details for each. Students can use magazines and newspapers to find

illustrations of the kinds of images they would like to show in the documentary, and indicate where in the script each image belongs.

ANDES

- How the physical aspects of the Andes Mountains affect life there
- Volcanoes and earthquakes
- The Incas' beliefs about the Andes

AMAZON BASIN

- Biodiversity in the Rain Forest
- Life of the Yanomami people
- Protecting the Rain Forest

PAMPAS

- Buenos Aires
- Cowboys and gauchos
- Effects of development

COASTS

- The Atacama Desert
- Plant and animal life
- Oil in Patagonia

Scripts should

- ✓ Develop the topic chosen for each region so that it is clear to the viewer.
- ✓ Choose supporting details that relate to the topic.
- ✓ Find appropriate illustrations for each region.
- ✓ Write in grammatical English.

Multiple-Choice Test

Use the multiple-choice test on page 102.

Cross-Curricular Connection

Literature

Have students read an age-appropriate work of fiction

about South America, such as *Black Rainbow: Legends of the Incas and Myths of Ancient Peru* or *Journey to the River Sea* (about an English orphan sent to live in the rain forest). Students can review the book chosen, and tell whether or not they liked it and why.

Home-School Connection

Students may keep a “news journal” for a designated time period, such as one week. For each day of the time period, students should watch at least one television news report and read one newspaper or news magazine, note which stories in the news concern South America, and discuss with their parents how these stories relate to the text.

Resources

Web Links

Students can expand their knowledge of the Amazon region by exploring www.greatestplaces.org/book_pages/amazon2.htm

Articles from *National Geographic*

“Sacred Peaks of the Andes”: March 1992

“Amazon: South America’s River Road”: February 1995

“Rain Forest Canopy: The High Frontier”: December 1991

“Argentina Protects Its Wildlife Treasures”: March 1976

“El Niño/La Niña: Nature’s Vicious Cycle”: March 1999

Vocabulary: Use Context Clues to Relate Words

You can use context, the way a term is used in a sentence, to figure out the meaning of an unfamiliar term. Read the sentences. Circle the words in each sentence that help you figure out the meaning of the word in italics. Write what you think the word means. Then look up the word in the glossary or a dictionary and see how closely its meaning matches the meaning you wrote from context. Finally, write a sentence in which you relate the word to Earth's layers.

1. Liquid rock poured from the Earth's crust when the volcano erupted.

Meaning from context: _____

Meaning from dictionary: _____

Sentence that relates the word to Earth's layers: _____

2. Two huge earthquakes off the coast of Peru sent shock waves through the ground.

Meaning from context: _____

Meaning from dictionary: _____

Sentence that relates the word to Earth's layers: _____

3. Earthquakes may occur when huge tectonic plates under the earth grind against each other.

Meaning from context: _____

Meaning from dictionary: _____

Sentence that relates the word to Earth's layers: _____

4. Rivers of melted rock may well up from the *mantle* deep beneath the Earth's surface.

Meaning from context: _____

Meaning from dictionary: _____

Sentence that relates the word to Earth's layers: _____

Read Strategically: Distinguish Fact from Opinion

As you read the chapter “Amazon Basin,” keep in mind that statements of fact can be proven true or false. A statement of opinion describes a belief or feeling. Opinion statements often include words such as “believe,” “beautiful,” or “should.” Identify each statement about the Amazon Basin below as a fact or an opinion, and circle your answer. When finished, add more facts and opinions about the Amazon basin at the bottom of this sheet.

- | | |
|---|--------------|
| 1. The Amazon River is the second longest river in the world. | FACT OPINION |
| 2. The Nile River is much more beautiful than the Amazon River. | FACT OPINION |
| 3. I believe that the United States should get all of its drinking water from the Amazon River. | FACT OPINION |
| 4. There is a wide variety of animal and plant life in the Amazon Rain Forest. | FACT OPINION |
| 5. The Amazon Rain Forest does not run through Argentina. | FACT OPINION |
| 6. Many medicines come from plants that grow in the Amazon Rain Forest. | FACT OPINION |
| 7. I believe that all people should stop mining in the Amazon Rain Forest. | FACT OPINION |

Now add some other facts and opinions about the Amazon Basin:

Fact: _____

Opinion: _____

Writing: Write a Travel Guide

Imagine that you have been hired to write a travel guide for people thinking about visiting the Pampas. What would you say? You would need to describe the region, the weather, what kinds of plants and animals live there, and other points of interest. Answer the questions below about the Pampas. When you are finished, use your answers to write an informative travel guide. For example, you might start your guide like this: “If you want to visit the Pampas, you will need to travel to the country of”

1. In what country will I find the Pampas? _____

2. What kind of weather will I find in the Pampas? Is it the same throughout the region?

3. What kind of clothes will I need to pack? _____

4. Is there a large city I can visit? What is it called? What kind of details can you tell me about the city?

5. What is a good way to travel between the city and the ranches? _____

6. What kind of plants and animals are raised on the Pampas? _____

7. What can you tell me about the people who work on the ranches? _____

8. What is the Campos del Tuyu Wildlife Reserve? _____

Now write your travel guide on a separate sheet of paper.

Think Geographically: Read a Satellite Image

The outline map below shows the same area of Brazil that is shown in the satellite image on page 61 of *South America: Geography and Environments*. Label each of the following on the map: forested land; Manaus; Amazon River; Rio Negro; cleared land. Make each feature a different color, and create a key that explains what the colors represent. When you are finished with your map, answer the questions below it.



1. Notice where Manaus is located. Why do you think the city is located there?

2. In the satellite image, you can see areas along the water where the forest has been cleared. List two reasons why you think people have settled here.
