7

History-Social Science Standard 7.7.1.

Student Workbook

California Education and the Environment Initiative

Sun Gods and Jaguar Kings

California Education and the Environment Initiative

Approved by the California State Board of Education, 2010

The Education and the Environment Curriculum is a cooperative endeavor of the following entities:

California Environmental Protection Agency
California Natural Resources Agency
Office of the Secretary of Education
California State Board of Education
California Department of Education
California Integrated Waste Management Board

Key Leadership for the Education and Environment Initiative:

Linda Adams, Secretary, California Environmental Protection Agency
Patty Zwarts, Deputy Secretary for Policy and Legislation, California Environmental Protection Agency
Andrea Lewis, Assistant Secretary for Education and Quality Programs, California Environmental Protection Agency
Mark Leary, Executive Director, California Integrated Waste Management Board
Mindy Fox, Director, Office of Education and the Environment, California Integrated Waste Management Board

Key Partners:

Special thanks to **Heal the Bay,** sponsor of the EEI law, for their partnership and participation in reviewing portions of the EEI curriculum.

Valuable assistance with maps, photos, videos and design was provided by the **National Geographic Society** under a contract with the State of California.

Office of Education and the Environment
1001 I Street • Sacramento, California 95812 • (916) 341-6769
http://www.calepa.ca.gov/Education/EEI/

© Copyright 2010 by the State of California
All rights reserved.
This publication, or parts thereof, may not be used or reproduced without permission from the Office of Education and the Environment.

These materials may be reproduced by teachers for educational purposes.

Contents

Lesson 1 From Riches to Ruin—Tales of Two Cities

Key Unit Vocabulary 2

Tales of Two Cities 4

Lesson 2 Born in the Shadow of Mountains

Mexico, Central America, and South America 7

Lesson 3 From Tropical Forests to Icy Glaciers

Climates of Mexico, Central America, and South America 8

Lesson 4 Hotbed of Biological Diversity

Ecosystem Goods and Services 9

Lesson 5 Treasure as Tribute from a Rich Land

Treasures as Tributes 10

Lesson 6 Development of Urban Societies

Development of Urban Societies 11

Amaranth: A plant grown throughout Latin America whose seeds are useful as a high protein grain.

Amber: Translucent yellow, orange, reddish, or brown fossilized resin that is valued as a gemstone.

Boom: In economic terms, a rapid increase in growth or development.

Bust: In economic terms, a sudden, rapid financial collapse.

Cacao (kah-kow**):** A Central-American tree whose seeds are used to make cocoa and chocolate.

Cenote (say**-noh-**tay**):** A sinkhole or natural well in the limestone bedrock that facilitated access to the water table by the Maya.

Chía (chee-uh**):** A plant in the mint family whose seeds are edible and highly nutritious.

Climate: The prevailing, average weather conditions of a particular area over time.

Cochineal (ko-chi**-**nay**-**al**):** A bright red dye made from the dried bodies of the small, cactus-feeding cochineal insect that is found primarily in Mexico.

Copal: (koh-pahl**):** A hard resin derived from tropical trees in the legume family that is used as incense and varnish.

Economy: Activities related to the production, distribution, and consumption of goods and services.

Ecosystem: A specific area, such as a kelp forest, that contains a characteristic set of interdependent species that interact with each other and the abiotic components found there.

Ecosystem goods: Tangible materials, such as timber and food, produced by natural systems, that are essential to human life, economies, and cultures.

Ecosystem services: The functions and processes that occur in natural systems, such as pollination, that support or produce ecosystem goods and help sustain human life, economies, and cultures.

Equator: An imaginary line equidistant from the poles and perpendicular to the axis of Earth's rotation.

Landform: Any topographic feature that makes Earth's surface, such as a plain, mountain, or valley.

Leeward: The side of a geographic feature toward which prevailing winds blow.

Maguey (mag-way**;** mah**-**gay**):** A desert agave plant that produces fiber and a sweet, honey-like syrup distilled into tequila.

Meso-America: The region from northern Mexico to Central America where pre-Columbian urban civilizations once flourished.

Natural resources: Materials, such as soil, water, minerals, and energy, that people use from nature and natural systems.

Nonrenewable resources: Natural resources that are finite and exhaustible, and are not naturally replenished at a rate comparable to the rate at which it is consumed by humans.

Obsidian: A volcanic glass that can be used to make sharp knives and other tools.

Pre-Columbian: Referring to the cultures of the New World in the era before significant European influence.

Quetzal (ket-sahl**):** A Central-American bird; the males are known for their bright green and red feathers and long tail feathers.

Rainshadow: An area with little precipitation that lies on the leeward (downwind) side of a mountain.

Renewable resources: Natural resources, such as firewood, that are replenished at a rate comparable to the rate at which it is consumed by humans.

Topography: The surface features of an area, or the use of symbols and colors on a map, to show surface features of an area.

Tribute: Money or goods paid by one ruler or nation to another, often resulting from war or a show of force.

Tropics: The region of Earth between the tropics of Cancer (23°27' N latitude) and Capricorn (23°27' S latitude).

Urban society: The human culture and activities found in cities.

Name: _____

Instructions: Complete the following tasks.

1. Select a California town, either Bodie or China Camp, to describe in the left column. Describe the ancient city of Copán in the right column. In each box describe the factors (physical geography, climate, resources, and resource use) that brought people to the town or city. (1 point each)

City: Bodie or China Camp (circle one)	**City:** Copán
Boom	**Boom**
Physical Geography	**Physical Geography**
Climate	**Climate**
Resources	**Resources**
Resource Use	**Resource Use**

Name: _____

City: Bodie or China Camp (circle one)	**City:** Copán
Bust	**Bust**
Environmental Changes	**Environmental Changes**
Climate	**Climate**
Resources	**Resources**
Resource Use	**Resource Use**
Social factors that affected resource use	**Social factors that affected resource use**

Name: _____

2. Name three renewable and three nonrenewable resources discussed in these stories. (2 points)

3. Describe one way that resources influenced the growth of **one** of these cities: Bodie, China Camp, or Copán. (3 points)

4. How were Bodie, China Camp, and Copán similar? (2 points)

5. How were Bodie, China Camp, and Copán different? (5 points)

Name: _____

Instructions: Choose 12 geographic features or areas and list them in the map key. Identify the locations of these features using the map you have created. (3 points for each feature)

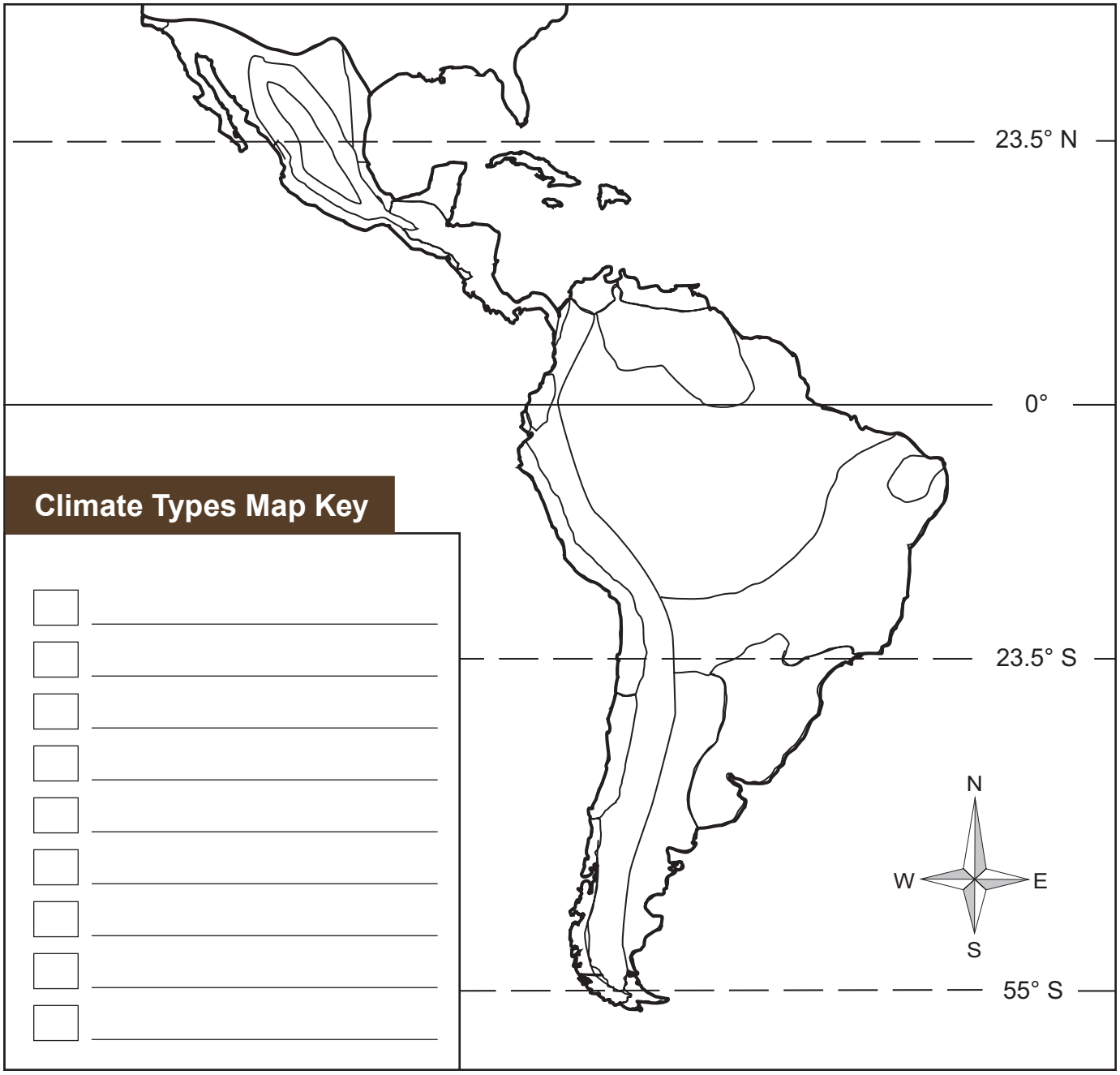
Map Key

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Name: _____

Instructions:

- Read the **Overview of Climates of Mexico, Central America, and South America** and locate the regions for each climate type on the **Climates of Mexico, Central America, and South America** map.
- Label the lines of latitude for the Equator, Tropic of Cancer, and Tropic of Capricorn.
- Label the Climate Types Map Key based on the projected map. (5 points each, 45 points total)
- Use your key and the projected map as a guide and color the climates on the map below.



Climate Types Map Key

☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____

Name: _____

Instructions: Complete the following.

1. Match the following list of ecosystem goods with the ecosystems where they are naturally found. Put the letter that identifies the good next to the ecosystem name. (2 points each)

Ecosystem Good	Ecosystem
a. copal sap	_____ coast/coral reef
b. parrot feathers	_____ wetland
c. fresh water	_____ desert
d. agave	_____ rainforest
e. spiny oyster shells	_____ rainforest
f. alpaca	_____ rainforest
g. fig bark	_____ grassland/alpine

2. Think about the variety of ecosystems available to any ***one*** of the three ancient civilizations (Maya, Inca, or Aztec). Describe two ecosystem goods and one ecosystem service that the people would have depended on to meet their basic needs. (10 points)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Name: _____

Instructions: Use the information you have from the *Codex Mendoza* to answer the questions. Focus your answers on the Aztec.

1. Which province did you study?_____

2. Name five ecosystem goods and the quantities that the people in your province paid to the Aztec leaders in Tenochititlán. (5 points)

_____

_____

_____

_____

_____

3. Choose two of the ecosystem goods and write them on the lines below. For each one, identify the ecosystem or natural region that made that ecosystem good available to the Aztec people. (3 points per item)

Ecosystem good # 1:_____
Ecosystem that was the source of the good:

_____

Ecosystem good # 2:_____
Ecosystem that was the source of the good:

_____

4. What are some ecosystem goods or products that might have been valuable to a province's economy? Why? (4 points)

_____

_____

_____

_____

_____

_____

Name: _____

Instructions: After reading about the urban society you were assigned, answer the following questions. Be prepared to share your response with the class. (5 points each)

1. Why did the population increase?

_____

_____

_____

_____

2. How did population growth and food surpluses affect the labor force?

_____

_____

_____

_____

3. How were the urban societies structured?

_____

_____

_____

_____

4. Why did a government structure develop in urban societies?

_____

_____

_____

_____

Name: _____

5. Why was religion a major part of life in ancient urban societies?

_____

_____

_____

_____

6. How did the architecture reflect the development of an urban society?
   Why were natural resources important in the architecture?

_____

_____

_____

_____

7. Why were natural resources important to trade and the economy?

_____

_____

_____

_____

Instructions: Write a one paragraph response to the question below.

8. How did the climate and surrounding ecosystems affect the economy of the urban society you studied (Copán, Tenochtitlán, or Machu Picchu)? (10 points)

_____

_____

_____

_____

_____

_____

California Education and the Environment Initiative

Printed on post-consumer recycled paper