

Table of Contents

Introduction

How to Use This Book



Chapter 1 Social Studies • History and Geography ① 09

Unit 01	The West Region of the United States	美國西部地區	10
Unit 02	The Southwest Region of the United States	美國西南部地區	14
Unit 03	The Southeast Region of the United States	美國東南部地區	18
Unit 04	The Northeast Region of the United States	美國東北部地區	22
Unit 05	The Midwest Region of the United States	美國中西部地區	26
REVIEW TEST 1			30

Chapter 2 Social Studies • History and Geography ② 31

Unit 06	The Mountain States of the United States	美國西部山區	32
Unit 07	Mountains, Rivers, and Deserts of the World	世界的山、河和沙漠	36
Unit 08	Asian Cultures	亞洲文化	40
Unit 09	Europe in the Middle Ages	中世紀的歐洲	44
Unit 10	The Civil War	南北戰爭	48
REVIEW TEST 2			52

Chapter 3 Science ① 53

Unit 11	Inquiry Skills and Science Tools	探究技術與科學工具	54
Unit 12	Classifying Living Things	生物的分類	58
Unit 13	Heredity	遺傳	62
Unit 14	The History of the Earth	地球的歷史	66
Unit 15	The Weather and Water Cycle	天氣與水循環	70
REVIEW TEST 3			74



Chapter 4 Science ②

75

Unit 16	Changes in Matter	物質的變化	76
Unit 17	Light and Heat	光與熱	80
Unit 18	Circulation and Respiration	循環與呼吸	84
Unit 19	Electricity	電	88
Unit 20	Motion and Forces	運動與力	92
REVIEW TEST 4			96

Chapter 5 Mathematics

97

Unit 21	Fractions and Decimals	分數與小數	98
Unit 22	Lines, Rays, Angles, and Figures	線、射線、角度與圖形	102
Unit 23	Kinds of Polygons, Circles, and Triangles	多邊形、圓形和三角形的種類	106
Unit 24	Data and Graphs	數據與圖表	110
REVIEW TEST 5			114

Chapter 6 Language • Visual Arts • Music

115

Unit 25	Norse Mythology	北歐神話	116
Unit 26	Learning about Sentences	句子的學習	120
Unit 27	The Art of the Middle Ages	中世紀藝術	124
Unit 28	The Art of Islam, Africa, and China	伊斯蘭、非洲和中國的藝術	128
Unit 29	The Elements of Music	音樂的元素	132
Unit 30	Understanding Music	了解音樂	136
REVIEW TEST 6			140

Index

141

Answers and Translations

147

The West Region of the United States 美國西部地區

Unit 01

Key Words

001



01 bountiful

[bɔ:ntɪfəl]

(a.) 充足的；豐富的 *bountiful land 富饒之地

California has a **bountiful** supply of fertile soil for farming.
加州有充足的沃土可供農業使用。

02 lush

[lʌʃ]

(a.) 豐富的 *lush green 鬱鬱蔥蔥的綠地

There are many **lush** forests in the Pacific Northwest.
太平洋西北地區蘊藏許多豐富的森林。

03 dense

[dɛns]

(a.) 稠密的；濃的 *dense fog/smoke/liquid 濃霧／濃煙／濃稠的液體

Dense and tall rainforests are found in the West.
稠密高大的雨林分佈於西部。

04 rain shadow

[ren 'ʃædəʊ]

(n.) 雨影（山脊背風面的少雨區） *rain shadow effect 雨影效應

The area within the **rain shadow** is usually warm and dry.
雨影地區通常溫暖乾燥。

05 logging

[lɔ:gɪŋ]

(n.) 伐木 *log (n.) 圓木 *log cabin 小木屋

Logging is a major industry in Washington and Oregon.
伐木為美國華盛頓州及奧勒岡州的主要產業。

06 deforestation

[dɪfɔ:rəs'teʃən]

(n.) 砍伐森林 *reforestation (n.) 林地復育；造林

Many people are concerned about **deforestation**.
許多人都很關切砍伐森林的議題。

07 gold rush

[gold rʌʃ]

(n.) 淘金潮（19世紀的一個文化特色）

The California **Gold Rush** attracted many people in 1849.
加州的淘金潮於1849年吸引了許多人。

08 urban sprawl

[ɜ:bən sprɔ:l]

(n.) 城市擴張（都市向郊區擴張的現象） *urbanization (n.) 都市化

Cities like Los Angeles suffer from **urban sprawl**.
像洛杉磯這樣的城市受城市擴張之苦。

09 traffic congestion

[træfɪk kən'dʒestʃən]

(n.) 交通壅塞 *traffic jam 交通堵塞

Traffic congestion creates huge problems in L.A. and other cities.
交通壅塞在洛杉磯及其他城市造成很大的問題。

10 Inuit

[ɪn'uɪt]

(n.) 因紐特人 *Eskimo (n.) 愛斯基摩人（被部分人認為是帶有貶義的稱呼）

The **Inuit**, sometimes called Eskimos, are Native Americans who settled in Alaska. 有時被稱為愛斯基摩人的因紐特人，是居住在阿拉斯加的原住民。

gold rush



urban sprawl



logging



deforestation



Power Verbs

002

irrigate

[ɪrɪ,geɪt]

灌溉

People in the West built dams to **irrigate** their land.
西部人築壩來灌溉他們的土地。



deforest

[dɪfɔːrəst]

砍掉

The forests can be **deforested** by clear-cutting. 森林可以以皆伐的方式被砍掉。

overpopulate

[oʊvə'pɔːpljʊ,leɪt]

人口過盛

The growing number of people moving in is **overpopulating** the area.
移居人口的增加使此區人口過盛。

log

伐（林木）

The lumberjacks are **logging** in the forest. 伐木工人在森林裡伐木。

hew

[hjuː]

（用斧、刀等）砍、劈

The lumberjacks are **hewing** trees in the forest. 伐木工人在森林裡砍樹。

cut down

砍、劈

The lumberjacks are **cutting down** trees in the forest. 伐木工人在森林裡砍樹。

be stuck in

被困在

Many commuters **are stuck in** rush hour traffic. 許多通勤者被困於交通尖峰期。

be caught in

遭遇到

Many commuters **are caught in** rush hour traffic. 許多通勤者遭遇到交通尖峰期。

Word Families

003

States in the West 西部各州

Alaska 阿拉斯加州

California 加州

Hawaii 夏威夷州

Nevada 內華達州

Oregon 奧勒岡州

Washington 華盛頓州

Geographical Features 地理特徵

地理特徵

earthquake 地震

volcano 火山

extreme climate 極端氣候

fertile soil 沃土

San Andreas Fault 聖安德烈斯斷層

Sierra-Nevada Mountains 內華達山脈

Death Valley 死谷

Great Basin 大盆地

Yosemite National Park 優勝美地國家公園

Redwood National Forest 紅杉國家森林

Leading Industries 領先產業

movie industry

電影工業

music industry

音樂工業

defense industry

國防工業

computer industry

電腦工業

aerospace industry

航太工業

Checkup

A

Write | 請依提示寫出正確的英文單字和片語。

1 充足的；豐富的	_____	9 城市擴張	_____
2 豐富的	_____	10 因紐特人	_____
3 稠密的；濃的	_____	11 灌溉	_____
4 雨影	_____	12 砍掉	d
5 伐木	_____	13 伐（林木）	l
6 砍伐森林	_____	14 砍、劈	c
7 淘金潮	_____	15 被困在	_____
8 交通壅塞	_____	16 人口過盛	_____

B

Complete the Sentences | 請在空格中填入最適當的答案，並視情況做適當的變化。

bountiful	urban sprawl	lush	deforestation	logging
congestion	rain shadow	dense	gold rush	Inuit

- 1 California has a _____ supply of fertile soil for farming.
加州有充足的沃土可供農業使用。
- 2 There are many _____ forests in the Pacific Northwest.
太平洋西北地區蘊藏許多豐富的森林。
- 3 The area within the _____ is usually warm and dry.
雨影地區通常溫暖乾燥。
- 4 Many people are concerned about _____.
許多人都很關切砍伐森林的議題。
- 5 _____ is a major industry in Washington and Oregon.
伐木為美國華盛頓州及奧勒岡州的主要產業。
- 6 Cities like Los Angeles suffer from _____.
像洛杉磯這樣的城市受城市擴張之苦。
- 7 The California _____ attracted many people in 1849.
加州的淘金潮於1849年吸引了許多人。
- 8 Traffic _____ creates huge problems in L.A. and other cities.
交通壅塞在洛杉磯及其他城市造成很大的問題。

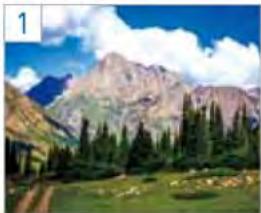
C

Read and Choose | 閱讀下列句子，並且選出最適當的答案。

- 1 People in the West built dams to (irrigate | irrigation) their land.
- 2 The forests can be (forested | deforested) by clear-cutting.
- 3 Many commuters are (stuck | congestion) in rush hour traffic.
- 4 The lumberjacks are (logging | cutting) down trees in the forest.

D

Look, Read, and Write | 看圖並且依照提示，在空格中填入正確答案。



1

► an area of a mountain that is dry because precipitation falls on the other side



3

► a large number of vehicles unable to move or moving very slowly



2

► a situation in which people go quickly to a place where gold has been discovered



4

► a member of a Native American people who live in the cold northern areas

E

Read and Answer | 閱讀並回答下列問題。 004

Earthquakes and Forest Fires

California is one of the richest states in America. It has a large amount of land. And it also has more people than any other state. It has plenty of natural resources, too. But everything is not perfect there. California has two major problems: earthquakes and forest fires.

The San Andreas Fault runs through California. Because of it, the state gets many earthquakes. Some of them are very powerful. For example, there was a strong earthquake in San Francisco in 1906. It destroyed many buildings. And it started numerous fires. Over 3,000 people died after it. There have also been many other strong earthquakes. Some people fear that the “big one” will hit someday. They think an earthquake will cause a huge amount of damage.

During summer and fall, much of California is dry. So forest fires, or wildfires, often start. These fires can spread rapidly. They burn many forests. But they also can burn people’s homes and buildings. They often kill people before firefighters can put them out.



Fill in the blanks.

- 1 California has more _____ than any other state.
- 2 There was a strong _____ in San Francisco in 1906.
- 3 California is often dry in the _____ and fall.

The Southwest Region of the United States 美國西南部地區

Unit 02

Key Words

005



01 Sunbelt

[sʌn,belt]

(n.) 陽光地帶 (美國南部與西南部) *Frostbelt (n.) 霜凍地帶 (美國北部)

The Sunbelt is a region that has a warm and sunny climate all year. 陽光地帶是指氣候整年溫暖且陽光充足的地區。

02 precious

[prɛ'ses]

(a.) 寶貴的；貴重的 *precious metal 貴金屬 *precious stone 寶石

In the dry Southwest, water is a precious resource.

在乾燥的西南部，水是很寶貴的資源。

03 aquifer

[ækwə'fər]

(n.) 含水土層 *confined/unconfined aquifer 受壓／非受壓含水層

Aquifers with groundwater supply much water to the Southwest. 蘊藏地下水的含水土層供給西南部大量的水。

04 aqueduct

[ækwɪ,dʌkt]

(n.) 溝渠 *Roman aqueduct 羅馬渠道 *ditch (n.) 溝渠；壕溝

People build aqueducts to carry water from place to place. 人們建造溝渠讓水通往每個地方。

05 petroleum

[pə'trɔliəm]

(n.) 石油 (= oil) *refined petroleum 精煉石油 *petroleum jelly 凡士林

The petroleum industry provides many jobs in Oklahoma and Texas.

石油工業為美國奧克拉荷馬州及德州帶來許多就業機會。

06 refinery

[rɪ'fərnəri]

(n.) 精煉廠 *oil/sugar refinery 石油精煉廠／製糖廠

A refinery is a factory where oil is refined. 精煉廠是提煉石油的工廠。

07 ranch

[ræntʃ]

(n.) 大牧場 *ranch house 牧場式住宅 *ranch dressing 田園沙拉醬

There are huge ranches with thousands of cows in the Southwest. 西南部有許多飼養數以千計母牛的大片牧場。

08 cattle drive

[kætl̩ draɪv]

(n.) 驅趕牛群 *cattle grid 拦畜溝柵 (車輛可以通行但牲畜無法通過的柵欄)

A cattle drive is usually led by cowboys on horses.

驅趕牛群的工作通常由騎著馬的牛仔來執行。

09 reservation

[rɛzə'veʃən]

(n.) 保留區域 *conservation (n.) 保育；保護 *preservation (n.) 維護；保護

The Hopi and Apache live on reservations in the Southwest.

霍皮族和阿帕契族生活在西南部的保留區域。

10 adobe

[ə'dəb̩]

(n.) 泥磚 *adobe house 土坯房

Adobe is a sun-dried brick of clay that the Hopi people make homes with. 泥磚是一種曬乾的黏土磚塊，霍皮人利用它來建造房子。

Roman aqueduct



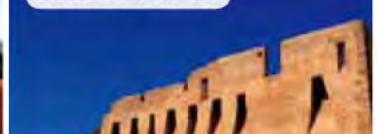
oil refinery



cattle drive



adobe houses



herd

驅趕

Cowboys used to **herd** cattle from Texas to the markets in the north.
牛仔以往將牛群從德州驅趕至北方的市場。

drive

驅趕

Cowboys used to **drive** cattle from Texas to the markets in the north.
牛仔以往將牛群從德州驅趕至北方的市場。

drill

鑽；鑽除

The company is **drilling** for oil in the desert. 那家公司在沙漠裡鑽地取油。

refine

提煉；精煉

Crude oil is **refined** in a refinery. 原油在精煉廠裡被提煉。

preserve

維護；保護

Many Native Americans try to **preserve** their traditional way of life.
許多印地安人試圖維護他們傳統的生活方式。

carry on

延續

The Hopi **carry on** the traditions of their ancestors.
霍皮人延續他們祖先的傳統。



Word Families

cowboy

牛仔

A **cowboy** works on a ranch and helps drive cattle.
牛仔在牧場工作並且幫忙驅趕牛群。

**vaquero**

[və'kərə]

(西南部的)牧人；牧童

A **vaquero** works on a ranch and helps drive cattle.
牧人在牧場工作並且幫忙驅趕牛群。

herder

牧人

Cattle **herders** drive cows to the market. 牧牛人將母牛驅趕至市場。

crude oil

原油

Crude oil can be used to make gasoline and other products.
原油可以用來製造汽油及其他產品。

petrochemical

[petrə'kemikl]

石油化學的

The **petrochemical** industry is very important in the Southwest.
石化工業對西南部非常重要。

States in the Southwest 西南部各州

Arizona 亞利桑納州**New Mexico** 新墨西哥州**Oklahoma** 奧克拉荷馬州

Geographical Features 地理特徵

plateau 高原**mesa** 臺地；平頂山**Grand Canyon** 大峽谷**canyon** 峽谷**butte** 孤山；孤峰**Four Corners** 四角落**desert** 沙漠**Painted Desert** 彩色沙漠**Sonoran Desert** 索諾蘭沙漠

Checkup

A

Write | 請依提示寫出正確的英文單字和片語。

1 陽光地帶	_____	9 精煉廠	_____
2 貴重的；寶貴的	_____	10 泥磚	_____
3 含水土層	_____	11 驅趕	h
4 溝渠	_____	12 鑽；鑽除	_____
5 石油	_____	13 提煉；精煉	_____
6 大牧場	_____	14 (西南部的) 牧人；牧童	_____
7 驅趕牛群	_____	15 原油	_____
8 保留區域	_____	16 石油化學的	_____

B

Complete the Sentences | 請在空格中填入最適當的答案，並視情況做適當的變化。

petroleum	aqueeduct	Sunbelt	precious	aquifer
reservation	refinery	cattle drive	adobe	ranch

- 1 In the dry Southwest, water is a _____ resource.
在乾燥的西南部，水是很寶貴的資源。
- 2 People build _____ to carry water from place to place.
人們建造溝渠讓水通往每個地方。
- 3 _____ with groundwater supply much water to the Southwest.
蘊藏地下水的含水土層供給西南部大量的水。
- 4 The _____ industry provides many jobs in Oklahoma and Texas.
石油工業為美國奧克拉荷馬州及德州帶來許多就業機會。
- 5 A _____ is usually led by cowboys on horses.
驅趕牛群的工作通常由騎著馬的牛仔來執行。
- 6 The Hopi and Apache live on _____ in the Southwest.
霍皮族和阿帕契族生活在西南部的保留區域。
- 7 A _____ is a factory where oil is refined. 精煉廠是提煉石油的工廠。
- 8 _____ is a sun-dried brick of clay that the Hopi people make homes with.
泥磚是一種曬乾的磚瓦黏土，霍皮人利用它來建造房子。

C

Read and Choose | 閱讀下列句子，並且選出最適當的答案。

- 1 Cowboys used to (carry | herd) cattle from Texas to the markets in the north.
- 2 Crude oil is (refined | drilled) in a refinery.
- 3 The company is (refining | drilling) for oil in the desert.

D

Look, Read, and Write | 看圖並且依照提示，在空格中填入正確答案。



▶ the southern and southwestern states of the US



▶ a large farm on which animals are kept

▶ an area of land made available for a particular group of people to live in

E

Read and Answer | 閱讀並且回答下列問題。 008

The Southwest

The American Southwest covers a very large area. But it only has a few states. It includes the states Arizona, New Mexico, Texas, and Oklahoma. Most of the land in these states is very dry. In fact, there are many deserts in these areas. Because of that, the people must practice water conservation all the time. But not all of the land there is desert. The Colorado River flows through Arizona. And the Rio Grande River flows through Texas. Also, the Rocky Mountains go through parts of Arizona and New Mexico. Arizona itself has a very diverse geography. Much of its land is desert. But the Grand Canyon is in the northern part of the state. Much of the northern part of the state has mountains. Also, there are many forests in this area. Texas is also a part of the Southwest. Much of the land is very dry. But many parts of Texas are rich with oil. The oil industry is a huge business in Texas. It's one of the biggest oil-producing states in the entire country.



What is NOT true?

- 1 There are many deserts in the Southwest.
- 2 Oklahoma and New York are in the Southwest.
- 3 The Grand Canyon is in Arizona.
- 4 Texas has a lot of oil.