# World Geography

This chapter requires a companion activity book in which students respond to questions on text content. A quiz follows every fifth lesson. Answers are found in the *Teacher's Resource Kit.*




# Chapter 5

WGO76349



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# PROFESSIONAL CREDITS

## *World Geography*

**Publishers**
Gene Hood, B.A., LL.D.
Ronald E. Johnson, C.Ph.D

**Chief Editor**
Ronald E. Johnson, C. Ph.D.

**Writers**
John Bennie, B.A.
Jonathan Bell, B.A.

**Contributing Editors**
Joyce Baker, A.A.
Nancy Johnson, B.A.
Kelley Griffin, M.S.
Carolyn Hood

**Cover Design**
Lydia Seals, B.A.

**Page Composers and Illustrators**
Timothy Baker, B.S.
Jonathan Bell, B.A.



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# WORLD GEOGRAPHY, CHAPTER 5 TABLE OF CONTENTS


PAGE



Maps . . . . . iv-vi

## SECTION 1



1. BORDERS AND BOUNDARIES . . . . . 1-5



2. TERRAIN . . . . . 6-10



3. BODIES OF WATER . . . . . 11-14



4. CLIMATE AND PRECIPITATION . . . . . 15-19



5. VEGETATION AND WILDLIFE . . . . . 20-23

## SECTION 2



6. FAMOUS EVENTS AND SITES . . . . . 24-28



7. RACES AND ETHNICITIES . . . . . 29-33

PAGE



8. LANGUAGES . . . . . 34-37



9. RELIGIONS . . . . . 38-42



10. TRANSPORTATION . . . . . 43-47

## SECTION 3



11. FORMS OF GOVERNMENT . . . . . 48-51



12. DIPLOMATIC RELATIONS . . . . . 52-56



13. ECONOMIC SYSTEMS . . . . . 57-60



14. NATURAL RESOURCES . . . . . 61-64



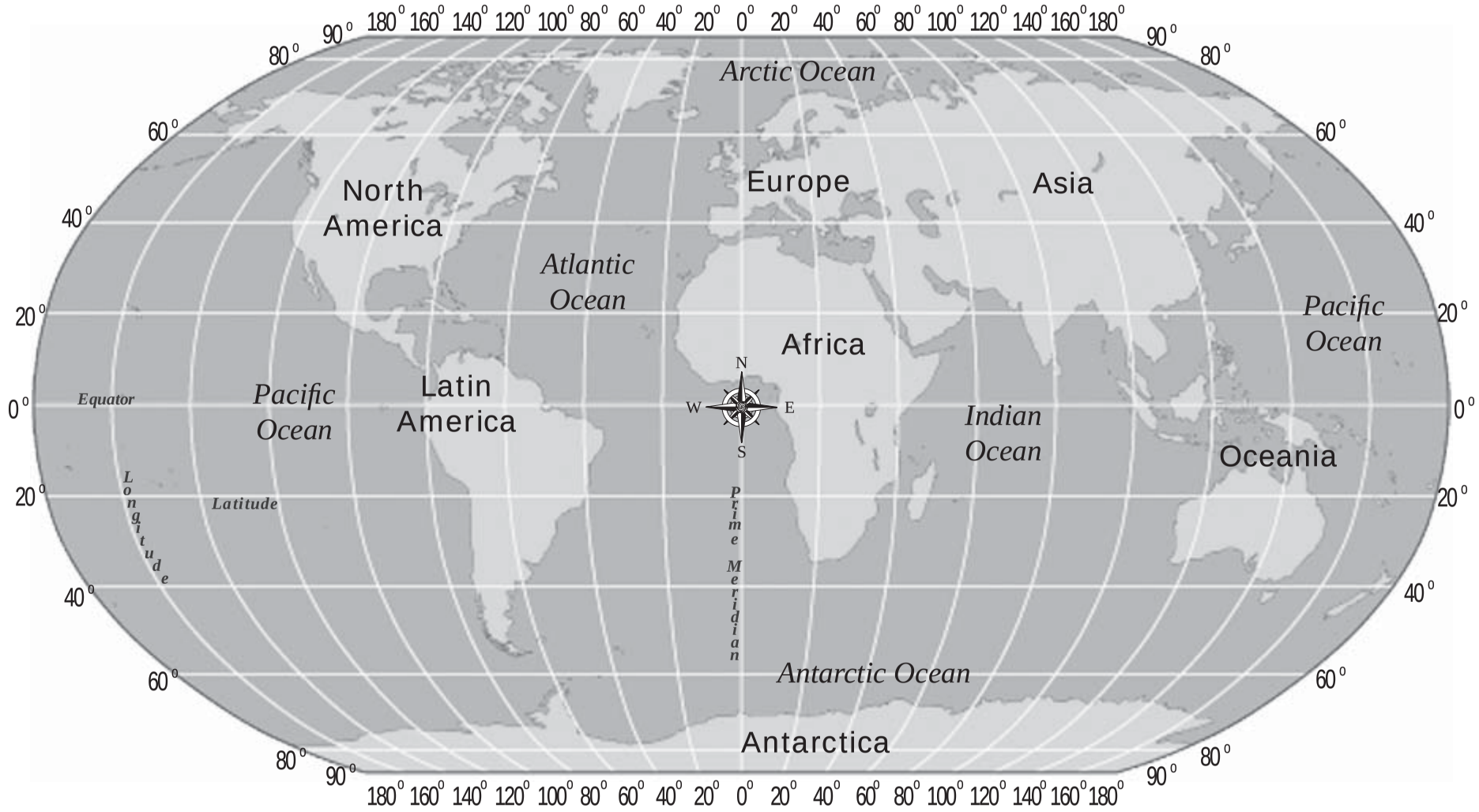
15. IMPORTS, EXPORTS, AND MAJOR INDUSTRIES . . . . . 65-68




© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

MAP A

# The World




© Copyright 2010, Paradigm Accelerated Curriculum

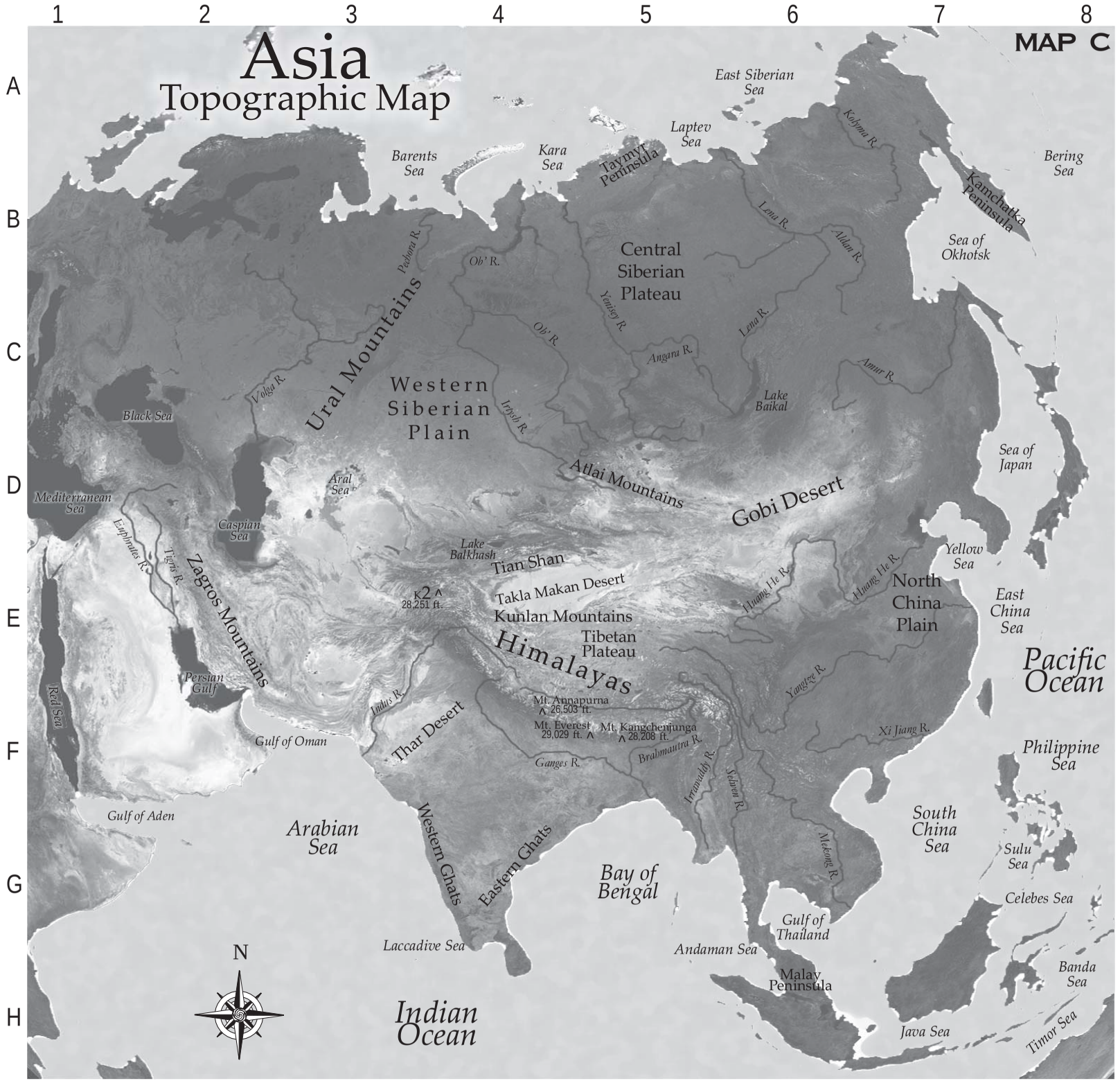


DUPLICATION BY WRITTEN PERMISSION ONLY.

© Copyright 2010, Paradigm Accelerated Curriculum

DUPLICATION BY WRITTEN PERMISSION ONLY.






© Copyright 2010, Paradigm Accelerated Curriculum



DUPLICATION BY WRITTEN PERMISSION ONLY.

# Largest Metropolitan Areas

## Asia



| *World Rank* | Rank | Central City | Country | Population | Outlying Areas / Suburbs |
|---|---|---|---|---|---|
| *1* | 1 | Tokyo | Japan | 33,800,000 | Yokohama, Kawasaki, Saitama |
| *2* | 2 | Seoul | South Korea | 23,900,000 | Bucheon, Goyang, Incheon, Suweon |
| *4* | 3 | Delhi | India | 22,400,000 | Faridabad, Ghaziabad |
| *5* | 4 | Mumbai | India | 22,300,000 | Bhiwandi, Kalyan, Thane, Ulhasnagar |
| *8* | 5 | Manila | Philippines | 19,200,000 | Kalookan, Quezon City |
| *10* | 6 | Shanghai | China | 17,900,000 | |
| *11* | 7 | Osaka | Japan | 16,700,000 | Kobe, Kyoto |
| *12* | 8 | Calcutta | India | 16,000,000 | Haora |
| *13* | 9 | Karachi | Pakistan | 15,700,000 | |
| *14* | 10 | Guangzhou | China | 15,300,000 | Foshan |
| *15* | 11 | Jakarta | Indonesia | 15,100,000 | Bekasi, Bogor, Depok, Tangerang |
| *19* | 12 | Beijing | China | 13,200,000 | |
| *20* | 13 | Dhaka | Bangladesh | 13,100,000 | Ruhitpur |
| *=21* | 14 | Istanbul | Turkey | 12,500,000 | |
| *=21* | 15 | Tehran | Iran | 12,500,000 | Karaj |
| *28* | 16 | Shenzhen | China | 9,400,000 | |
| *29* | 17 | Wuhan | China | 9,000,000 | Sanlizhen, Jiangxia |
| *31* | 18 | Bangkok | Thailand | 8,750,000 | Nothaburi, Samut Prakan |
| *=34* | 19 | Lahore | Pakistan | 8,300,000 | |
| *=34* | 20 | Nayoga | Japan | 8,300,000 | Toyoake, Inazawa |
| *37* | 21 | Tientsin | China | 8,200,000 | |
| *38* | 22 | Madras | India | 8,050,000 | Chromepet, Sattangadu |
| *39* | 23 | Bangalore | India | 7,600,000 | |
| *40* | 24 | Hyderabad | India | 7,350,000 | Secunderabad |
| *43* | 25 | Hong Kong | China | 7,200,000 | Kowloon, Victoria |

All information from http://www.citypopulation.de/world/agglomerations.html and accurate as of December 31, 2009.

© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

## Chapter 5

**Lesson 1**
*Borders and Boundaries*

**Section 1**
*Lessons 1-5*

**Borders and Boundaries of Asia**




The continent of Asia, the largest in the world by both area and population, is the landmass east-southeast of Europe and east-northeast of Africa. Its physical size is enormous—at 17 million square miles, it is 50% larger than Africa and nearly twice as large as North America. Nearly four billion people make their homes throughout this continent, which comprises nearly a third of Earth's total land area and approximately forty-seven countries. (As in many regions, scholars debate this number due to ongoing boundary disputes and cultural affiliations.)

Multiple explanations have been posited for the origins of the name Asia. Contrary to places like North America, which was rapidly populated over a short period and whose original colonizers knew they had reached a separate and distinct landmass, Asian civilization dates back much farther, and its inhabitants held widely divergent cultures. Though the designation of the entire landmass as one continent makes geographic sense given its cohesion and unified structure, in ancient times its civilizations were no more alike than, say, Inuit Eskimos and Mexicans today. The term may have come from the Greek word Ἀσία, used by 5th-century BC historian Herodotus in describing the Persians in the east. As Greek and then Roman civilization grew, eventually the term was applied to all societies in the East. Intriguingly, when ancient geographers used this word, they did not fully grasp what they were describing. Ancient culture typically considered India the edge of the world, so all the areas east were not included, simply because

## VOCABULARY

***Confederation***: alliance or union in which member states largely retain individual sovereignty
***Continental shelf***: edge of a continental mass that lies under the sea in comparatively shallow water, usually down to 800 feet
***Island arc***: arc-shaped chain of volcanic islands
***Antimeridian***: 180th meridian; line of longitude exactly opposite of the Prime Meridian; International Date Line



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

they were unknown. As an alternative to the Persian explanation, the word Ἀσία could have come from the Assuwa league, a ***confederation*** of nations from the 14th century BC located in modern-day Turkey.

Another school of thought leaves out the Greeks entirely, suggesting that "Asia" may be a derivative of a term from a much earlier language. Similar to the definition of "Europe" as "sunset," some suggest that "Asia" derives from an Akkadian word meaning "to ascend," referring to the direction from which the sun rises. "Asia" and "Europe," then, complement each other with opposite definitions, which would make sense given the location of ancient peoples in the Middle East, or effectively between the two continents.



Ural Mountains

Asia shares borders close in proximity to four other continents—Europe, Africa, and North America—and also Oceania, the region consisting of Australia and other islands of the South Pacific. As some of these continents' borders have historically been fluid, so have Asia's at the places they meet. Asia is considered the larger part of the Eurasian landmass, comprised of both Europe and Asia, and the land boundaries between the two are fuzzier than water boundaries separating Asia from North America, for instance. Tectonically, Europe and Asia share a ***continental shelf***, further blurring the distinction between them, and causing a few scholars to reject the division entirely, lumping both continents together into one. This practice has not gained common acceptance, however, and the vast majority of scholars hold Europe to be both an extension of the Asian landmass and a separate continent in its own right.

Given this, the boundaries of Asia this text will use generally follow the current borders. In the west, the line dividing Asia from Europe runs from the Dardanelles through the Sea of Marmara, the Bosporus, into the Black Sea. It continues along the Caucasus Mountains, falls into the Caspian Sea, and traces the Ural River up through Russia to the Ural Mountains, which are Russia's main boundary between the two. In the north, it ends at the Kara Sea. With Africa, the definition is much easier: Egypt's Sinai Peninsula, which comprises six percent of the country's area, is the westernmost point in Asia, bounded by the Suez Canal in the west. The Red Sea divides the Arabian Peninsula from Africa just south of this. In the southeast, things become a bit hazier. One of Asia's subregions is Southeast Asia, the area including Indochina and the islands to the south. Most of the islands north and east of Australia are in Asia, but the island of New Guinea is bisected, the western half part of Indonesia and the eastern half the nation of Papua New Guinea. Definitions of Oceania generally embrace the whole island despite the fact that Indonesia is considered part of Asia. This text, however, will follow the bisection and treat Indonesia in its entirety in this chapter and Papua New Guinea in the Oceania chapter. In the far east, some of the farthest Aleutian Islands are geographically Asian, but politically, they are treated with North America, just as all of Eastern Russia is considered Asian.

Indonesia is one of several countries



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

in Asia that straddles the border between two continents, countries whose placement is often controversial and subjective. Egypt is the lone inclusion in this category in Africa, but it will not be covered in this chapter. The Caucasus nations of Georgia, Azerbaijan, and Armenia are all in both continents, but were covered in Europe (Armenia lies mostly in Asia, but has more pronounced cultural ties with Europe). Turkey is almost exclusively Asian except for the three percent of the country in Thrace (which includes its largest city), and will be covered in this chapter. Russia lies mostly in Asia and will be treated here, but only marginally because most of its population lives in the European portion. Kazakhstan also includes both continents and will be covered here. Some dependencies and outlying territories, such as the British Indian Ocean Territory, are politically outside of Asia but geographically inside it, and they are considered Asian.



Middle East Map

Because it is so vast, Asia includes several loosely defined regions of the world that nonetheless serve as important terms for classifying areas and countries. Often, they are tied together culturally or religiously, and many of the same strengths and challenges are found throughout multiple countries in one region. In the west, the Middle East encompasses the countries of the Arabian Peninsula, the strip of land from Israel to Pakistan, and Turkey. The term also usually includes Egypt and sometimes North Africa as far west as Mauritania, and is alternatively referred to as Western Asia. Southeast Asia includes eleven countries in Indochina (the peninsula extending south from China from Myanmar to Singapore) and the ***island arcs*** in the various seas between Asia and Australia. East Asia, which as a term is perhaps used less because its territory is not set off from the mainland like Southeast Asia or the Middle East, includes China, Mongolia, the Koreas, and Japan, along with several smaller countries.

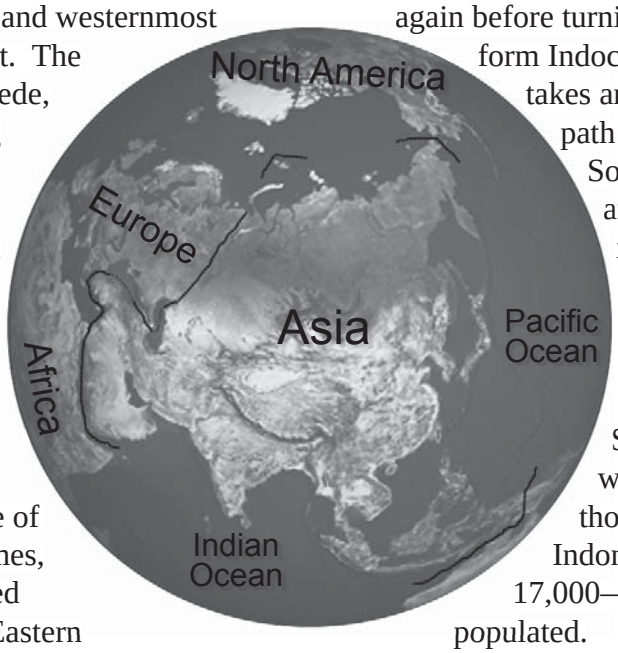
Asia is home to several of the world's largest countries in several categories. It has the largest country by area (Russia, 6.56 million square miles), the most populous country (China, 1.33 billion people), the largest landlocked country (Kazakhstan), and the most densely populated territory of any kind (Macau, 48,000 per square mile), and the least densely populated country (Mongolia, 4 per square mile). Another unique feature, one shared only with Africa, is that Asia has land in all four hemispheres, as the far eastern tip of Siberia stretches across 180°W/E. Some sources peg the number of languages in Asia at over 2,000, and every major world religion—Christianity, Islam, Hinduism, and Buddhism—is represented in large numbers.

The extreme points in Asia are


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

understandably quite distant from one another. The northernmost point is Cape Fligely, located at 81°50'N in Franz Josef Land. The southernmost is Pamana Island, Indonesia, located at 11°S. Longitudinally, the question is a bit trickier. Cape Baba in southwest Turkey is the westernmost point at 26°4'E, while Big Diomede Island in the Bering Strait is the easternmost at 169°3'W. Because Big Diomede is located across the ***antimeridian*** in the Western Hemisphere, however, it can technically be considered the westernmost point in Asia. This is similar to the situation in North America, in which Attu Island in Alaska's Aleutian Islands is alternatively considered both the easternmost and westernmost point on the continent. The island of Little Diomede, 2.5 miles west of Big Diomede, is part of Alaska; this represents the closest point between the two continents and is divided by the International Date Line, which runs about a mile from either island. In spite of these far-flung extremes, most of Asia is located in the Northern and Eastern Hemispheres.




Beginning at the Kara Sea, the coastline of Russia snakes along the Arctic Ocean for several thousand miles before curving around the tip of Siberia and turning west. Most of northern Russia, which is encompassed by the Siberia label, is sparsely populated and inhospitable. The coastline takes a path down around the Kamchatka Peninsula and then carves out the Sea of Okhotsk to the west, which measures 600,000 square miles. The shore carries down through eastern Russia and around the Korean Peninsula, then wraps around the Yellow Sea, which forms the northern part of the East China Sea. Japan is located just east of the Koreas. The coast wraps around China fairly regularly for a great distance, then curves around Hainan and back north again before turning southward to form Indochina. Indochina takes an irregular and curvy path through the shallow South China Sea. Huge archipelagos and island arcs—similar to Alaska's Aleutian Islands—dot the South China Sea to form Southeast Asia. Southeast Asia as a whole includes tens of thousands of islands—Indonesia alone has over 17,000—and is densely populated.

West of Indochina, the coastline continues west shortly, than dips


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

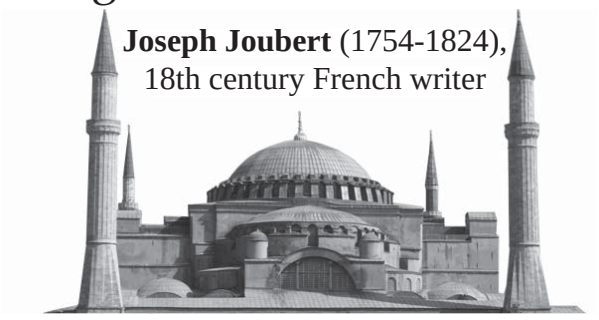
dramatically south and north again to form the Indian subcontinent. South of this is the Indian Ocean, the world's smallest ocean. The countries of Pakistan and Iran take the coastline west again, and it bottles up into the Arabian Peninsula at the Persian Gulf. Around this peninsula, the open Indian Ocean gives way to the Red Sea via the Bab el-Mandeb Strait. Up the Red Sea in the Sinai Peninsula, the Red Sea connects with the Mediterranean Sea through the Suez Canal, one of the most ambitious and important projects ever undertaken.

Asia's large number of countries makes it impossible to cover its other boundaries (for example, the water boundaries with Oceania) here, nor can we cover internal national boundaries. Maps B and C will aid you in this. Asia is a fascinating place precisely because it is so broad and diverse. Enjoy the journey!

# Life Principle

Monuments are the grappling irons that bind one generation to another.

**Joseph Joubert** (1754-1824), 18th century French writer





© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

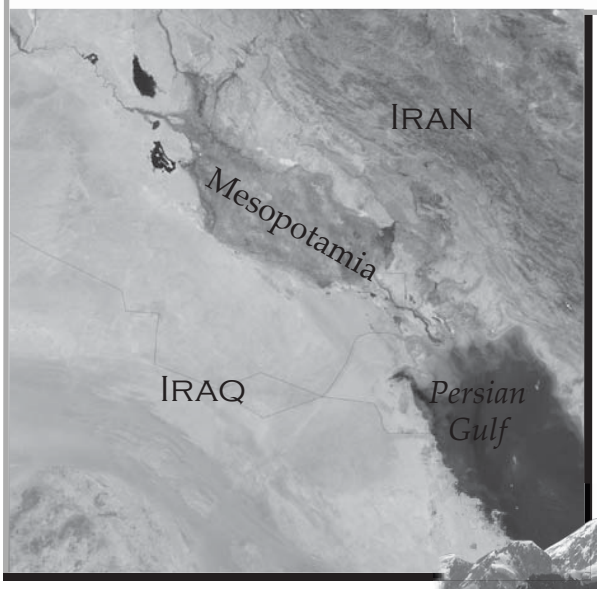


**Lesson 2**
*Terrain*

## Chapter 5

**Section 1**
*Lessons 1-5*

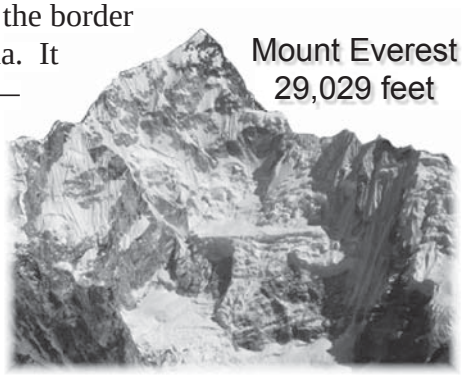



Asia is a landmass for the record books. Its approximately forty-seven countries top lists in a plethora of categories, some of which we've covered already. Russia is easily the largest country in the world, China is the most populous, Mongolia is the most sparsely populated—and then there are other records. Tokyo, Japan, for instance, is far ahead of Seoul, South Korea as the largest agglomeration of people on the planet—34 million as of January 2009. Japan is the richest island in the world with a GDP of nearly five trillion dollars in 2008. The worst natural disaster ever recorded occurred in China in 1931, a series of floods that killed four million people. The comparison is perhaps unfair, as Asia has nearly four times the population of the next largest continent and fifty percent more land area. But it is fascinating that so many lists would be headed by Asian countries, territories, and cities.



Geographically, Asia is no less diverse. The highest point on the Earth's surface is Mt. Everest, located in the Himalaya Mountains on the border between Nepal and China. It towers 29,029 feet high—nearly six miles—far above the dizzying heights of other tall mountains in the region. Across the continent, the Dead Sea is the lowest



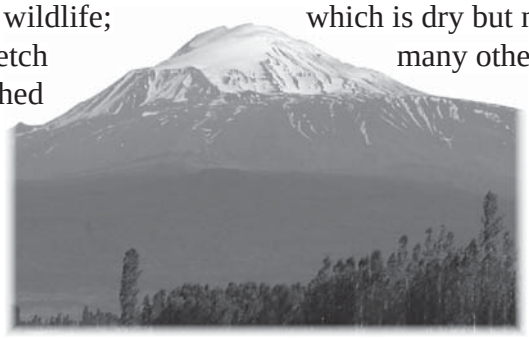

## VOCABULARY

***Prominence***: measure of a summit's protrusion from the terrain around it; technically, the vertical descent required to get from one summit to a higher one
***Quicksand***: loosely packed sand or silt mixed with water that appears to be solid but gives way to weight placed upon it
***Arable***: fit for plowing or farming
***Cold desert***: cold region receiving little or no precipitation



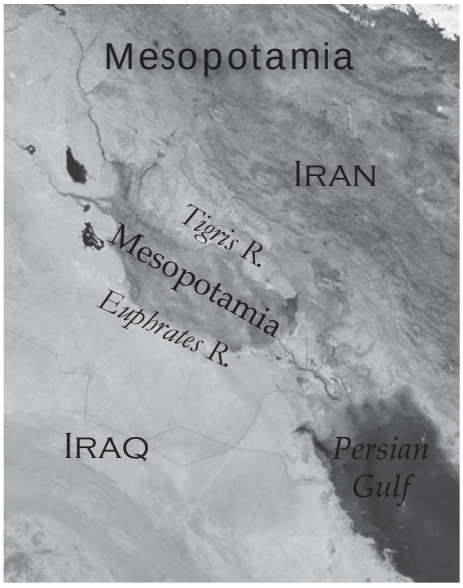
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

non-oceanic place in the world at 1,385 feet below sea level, straddling the border between Israel and Jordan. Asia contains every kind of topographical feature imaginable. Spectacular mountains soar miles into the stratosphere, rolling hills house rare and unfettered wildlife; flat plains and prairies stretch across miles of sun-drenched territory, nothing marking their progress; dry steppes cover countrysides, scorching hot and bitterly cold deserts alike sport barren bluffs and sand dunes; fertile deltas teem with life, dramatic waterfalls plunge hundreds of feet into brimming rivers below, stunning canyons and gorges rip across landscapes. It is a dazzling place, Asia, and its geography is as beautiful and varied as its huge population and vast space.



Mount Ararat
16,854 feet

Beginning in the west, the nation of Turkey is flanked by the Pontic Mountains in the north and the Taurus Mountains in the south. These ranges are somewhat low except in the east, where Mt. Ararat crowns the Armenian Highland at nearly 17,000 feet. In between is a broad plateau a few thousand feet high that stretches across most of the country, whose Asian portion is called Anatolia. As Turkey gives way into Saudi Arabia to the south, the mountains gradually diminish. Israel, located on the Mediterranean, is low-lying, but on the Syria–Jordan border the land is a few thousand feet high. The Syrian Desert occupies much of Syria, western Iraq, Jordan, and the northern portion of Saudi Arabia. Rock cliffs and bluffs intersperse with sandy stretches in this hot region, which is dry but not nearly as dry as many other deserts.




Just north of the Syrian Desert lies the Fertile Crescent. Immensely valuable in ancient times, it is an arc of land stretching from Israel to southeast Turkey, then curving sharply south through northern Syria before blanketing much of eastern Iraq. Topographically, much of the region is mundane. In Syria and Lebanon, the Lebanon Mountains traverse much of the country, their heights spilling into Syria, but for the most part they are only moderate in height, with low ***prominence***. Southeast Turkey is also rugged, but large areas of Iraq are low, such as the capital, Baghdad, just 112 feet above sea level. But the land has historically been important for its support for agriculture in an arid region. Satellite views confirm the land's nature as an island of fertility in a sea of aridity. In ancient times, the land was called Mesopotamia, which means "land between the rivers," a fact owing to the centrality of the Tigris and Euphrates Rivers in Iraq. These two


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

waterways provide rich soils and invaluable irrigation waters to the dry region, and the land between and surrounding them is nicknamed the "cradle of civilization" because it is widely believed to be the birthplace of human life.

In the south, desert gives way to more desert: the Syrian gradually transitions into the Arabian, which is one of the driest places in the world. This hyperarid land hosts little life of any kind. Nomadic Arab peoples who have historically roamed the region are seldom found in central Saudi Arabia, which averages a few thousand feet in elevation. Sand dunes are the primary geological feature here, broken up by cliffs and escarpments like Tuwayq. In the southeast lies the Rub' al Khali, perhaps the most barren section of the Arabian Desert. Mostly made of sand (as opposed to rock), it covers a quarter million square miles of oil-rich land. ***Quicksands*** are scattered throughout the desert. Save for oil workers and prospectors, few human settlements exist here. As a whole, Saudi Arabia's harsh terrain and climate make it one of the least densely populated countries in the world, with most of the population centered along the Red Sea or in its capital, Riyadh. Saudi Arabia's southern border, both with Yemen and Oman, is somewhat undefined, partly because few people live in the region to argue over it. Yemen and Oman echo terrain from Saudi Arabia in that they are both largely desert. Southwest Yemen is home to the Hadhramaut region, which is crowned at 12,028 feet by Yemen's highest peak. In eastern Oman, the Al Hajar Mountains divide the Arabian Desert from the coast. The United Arab Emirates, home to Dubai and its spectacular skyline, is mostly under a few hundred feet high.

Iran is a transitional country between West Asia and central Asia. The country has one of the highest mean elevations on Earth, dominated by several impressive mountains ranges and high interior plateaus. The two most important mountain chains are the Zagros and the Alborz. The Zagros are the longest of the two, picking up from the Turkish border and heading southeast to the Persian Gulf. The Alborz, which run through the capital, Tehran, rim the Caspian Sea and are the shorter but higher of the two. Mount Damavand, the pinnacle of this chain, is both the highest volcano in Asia and the highest mountain in the Middle East, at 18,406 feet. Most of the central region of the country is known as the Central Plateau, and although it is not technically mountainous, elevations can vary widely. Iran's lowest area is near the Persian Gulf in the south.



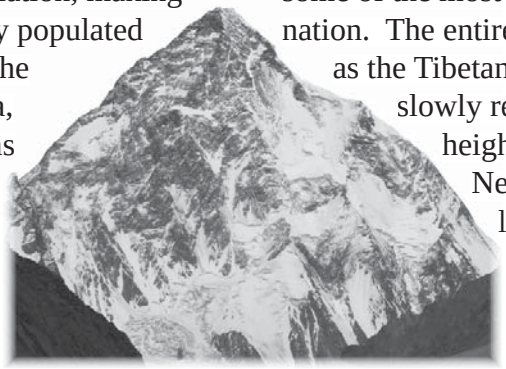
Tirich Mir
25,289 feet

Moving west, the countries of Turkmenistan, Afghanistan, and Pakistan border Iran, and they vary in topography. Turkmenistan is mostly low-lying and flat, while Afghanistan and Pakistan are anything but flat. The latter two are dominated by high plains in the west and give way to extremely high mountains in the east. These mountains, which are comprised of various smaller ranges and chains, collectively form the Hindu Kush, which is, in turn, part of the Pamir Mountains, the far western extension of the Himalayas (although they are typically viewed as an


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

entirely distinct range). The highest point of these mountains is in the area where Afghanistan, Pakistan, China, and India converge in the region called Kashmir. Pakistan's Tirich Mir reaches 25,289 feet here, covered by snow virtually year-round. China's neighbors of Tajikistan and Kyrgyzstan, directly north of Afghanistan, are extremely rugged, given their situation in the Pamir and Alay Mountains.

The vast majority of India ranges between sea level and 2,000 feet in elevation. The western area is occupied by the Thar Desert, the world's seventh largest and one of the more sparsely populated regions of the country. This region is generally below 1,500 feet. Stretching toward the Himalayas in the north and then turning southeast to follow the Ganges River, the Indo-Gangetic Plain is home to the capital, New Delhi, as well as the vast majority of India's population, making it likely the most densely populated region in the world. In the center and south of India, the Deccan Plateau forms the land between the Western and Eastern Ghat mountain ranges, which lie along either coastline. Several large cities exist throughout this region, as well, such as Bangalore and Hyderabad.



K2
28,251 feet

In India's north are the Himalaya Mountains. These rise quickly and steeply from the Indo-Gangetic Plain and are easily the world's highest mountain system. They are spread across seven countries: Afghanistan, Pakistan, India, China, Nepal, Bhutan, and Myanmar (although Afghanistan's Hindu Kush is usually considered a separate chain). The highest of the peaks is Mount Everest, the highest peak on Earth, at 29,029 feet above sea level. Several others are important both geographically and recreationally: K2, the world's second-highest peak at 28,251 feet, is notoriously difficult to climb, having claimed dozens of lives on its sheer slopes. But the numbers alone do not do the Himalayas justice. To grasp the dizzying heights of the Himalayas, comparisons come in handy. The highest mountain outside of Asia, the Andes' Mount Aconcagua, is 22,841 feet high, over a mile shy of Everest. The Himalayas, in contrast, have over a hundred mountains higher than this, many of which are subpeaks of a parent peak.

China is the world's third or fourth largest country (the precise figures are disputed, leaving the ranking of China and the United States in limbo) by area and has some of the most diverse geography of any nation. The entire western region is known as the Tibetan Plateau, where elevation slowly recovers from the dramatic heights of the Himalayas. Nearly a million square miles large, the average elevation across the plateau is nearly 15,000 feet high—which is higher than the highest mountain peak in the contiguous U.S. Two smaller mountain ranges mark the edge of the Tibetan Plateau, across which the terrain gives way to basins. The Tarim Basin in the northeast is only several thousand feet high, while the Sichuan Basin near the country's geographic center is even lower. The Tibetan Plateau is the source for many Chinese rivers, including the Yellow and the Yangtze, both of which flow east through the North China Plain to the East China Sea.



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

In the east, a series of low plains stretches along the coast, where powerful river waters render much of the soil ***arable***. This is also the center of the vast majority of China's population centers. Beijing, with 13 million people, is located in the North China Plain near the Yellow Sea; Shanghai's 18 million are in the Yangtze's delta on the East China Sea.

North of China, the Gobi Desert is a ***cold desert*** that occupies much of Mongolia. Mongolia and its neighbor Kazakhstan are the largest landlocked countries in the world, and both share the Altay Mountains, whose highest point is nearly 15,000 feet. Lake Khövsgöl in western Mongolia is one of the largest and most picturesque lakes in the world. North of these countries, the Asian portion of Russia is cold, inhospitable, and sparsely inhabited. East of the Ural Mountains, which demarcate the boundary between Europe and Asia, few geological features exist to differentiate the terrain. Most of the massive plain of Russia is known as Siberia.

In Japan, some other offshore islands, and all of the vast area of Southeast Asia, much of the land is volcanic and is built on the slopes of the mountains rising out of the sea. Japan's Mount Fuji is of particular importance as the highest peak in Japan, while Malaysia and Indonesia have several high summits. Southeast Asia is tremendously fragmented, with tens of thousands of islands, many uninhabited. However, some of the large islands have extremely high population densities.

# *Life Principle*

*It is an old saying that we should not "make a mountain out of a molehill."*

**Sir Henry Ellis** (1777-1869),
19th century British historian



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

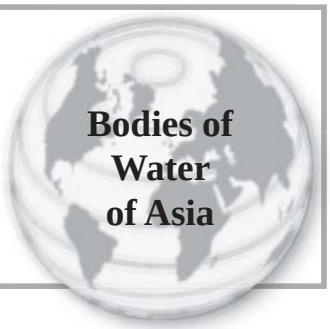
# World Geography

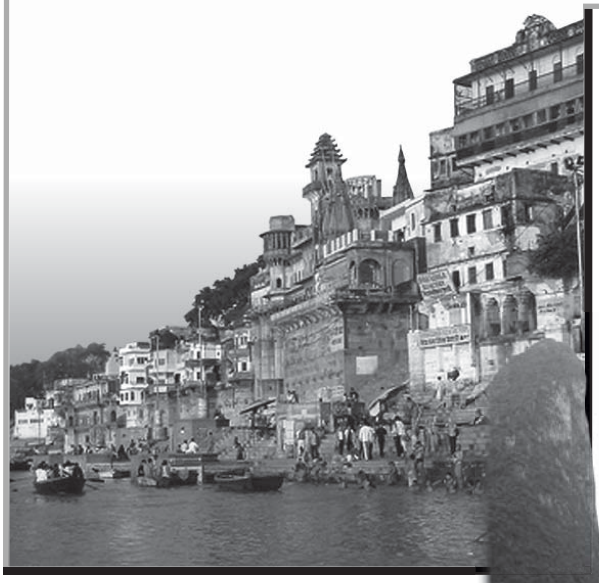
## Chapter 5



**Lesson 3**
*Bodies of Water*

**Section 1**
*Lessons 1-5*



One of the most fascinating aspects of studying world geography is discovering how different societies, different cultures, different religions view the natural world through such divergent lenses. In the West, people are awed and inspired by the natural world. A visitor to Arizona's Grand Canyon, a vacationer seeing the Northern Lights for the first time, and a lifelong resident of Rio de Janeiro may all be wowed by the sheer natural beauty and grandeur of the environment. The same is no doubt true on the other side of the world—a Nepalese businessman who catches sight of the snowcapped Himalayas may linger a moment in wonder, in the same way an Arab trader crossing the Sahara may consider how such a barren place exists. Yet in the West, where Christianity—or at least a Christian heritage—runs threads throughout most nations and cultures, few people worship or consider sacred the natural environment. In Asia, however, this is not so. Hinduism, Buddhism, Islam, Shinto—indeed, many Eastern faiths—hold that their gods have a special connection with specific places on Earth, and these places harbor a special religious significance. One of the best examples of this is in regard to rivers. The Ganges River, which treks through 1,560 miles of northern India, is held sacred by Hindus, who believe it has healing and saving powers. Hinduism's most sacred city is Varanasi, located on the Ganges's banks, and millions of Hindus make at least one pilgrimage to



## VOCABULARY

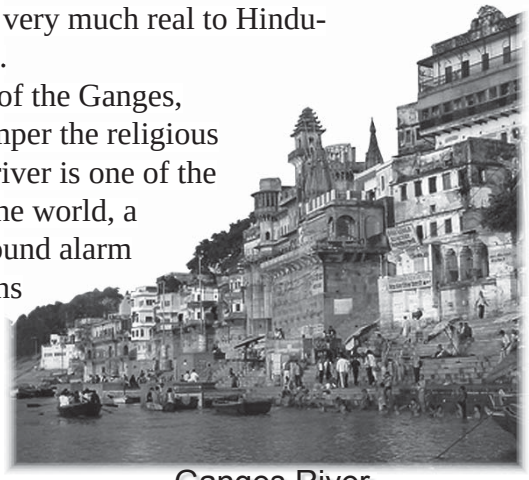
***Saline***: salty
***Rift***: place where the Earth's crust and lithosphere (outer layer) are being pulled apart
***Hot springs***: spring produced by geothermally heated groundwater in the Earth's crust
***Desertification***: extreme deterioration of land in arid and dry sub-humid areas due to loss of vegetation and soil moisture



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

the river in their lives to partake in its power. The intimate relationship with the river is something most Westerners fail to conceive, but it is very much real to Hindu-practicing Indians.

In the case of the Ganges, actual realities temper the religious symbolism. The river is one of the most polluted in the world, a fact that should sound alarm bells to the millions along its banks. Estimates peg the number of daily bathers around 2 million. Excrement and waste material litter the river, but its significance to India's primary religion mean it is not possible to close it or place restrictions on it. Social and economic woes in India are behind the sanitation problem. Much of the Indian population live in abject poverty, plagued by unsanitary living conditions and diseases. These diseases get washed into the river by bathers, carrying the steady stream of filth and infection through the country's most populated cities. India has undertaken several large-scale programs to clean the river, but as of yet, success has remained elusive (Map B).



Ganges River

Asia holds some of the world's most important bodies of water and waterways by both size and their significance to local cultures. The continent touches more oceans than any other (three), boasts six of the ten longest rivers in the world, and has some of the longest coastlines. In addition, some of the clearest and most picturesque lakes are found here, as well as the world's deepest and some of its least ***saline***.

Of the world's four oceans, the only one on which Asia does not have frontage is the Atlantic. In the north, Russia spans nearly half the width of the Arctic Ocean, which washes upon its Siberian shores. The Indian Ocean, named after the country crowning it, borders the Arabian Peninsula and counts many islands of Southeast Asia as its own. The vast Pacific marks the far eastern boundary of Asia, bordering China and Vietnam and giving rise to the islands of Japan. Many seas and protected bays count themselves as part of these oceans as well, from the very small to the immense. The Red Sea divides Saudi Arabia from Africa and conducts traffic between the Indian Ocean and Mediterranean Sea via Egypt's Suez Canal. The water immediately west of India is considered the Arabian Sea, while the shores to the east border on the Bay of Bengal. China has two seas taking its name: the South China Sea, roughly bounded by China, Vietnam, Malaysia, and the Philippines; and the East China Sea, located between Taiwan and Japan. The waters east of the Philippines are known as the Philippine Sea, while in the far east of Siberia lies the Sea of Okhotsk. The Bering Sea is the name for the waters between and around Russia and North America. North of Russia, the chilly Arctic Ocean waters are broken into bodies like the East Siberian Sea and the Kara Sea (Map C).

The longest river in Asia is the Yangtze, which also comes in third place in the world at 3,915 miles long. It originates in the heights of the Tibetan Plateau—16,540 feet high. The river flows east and then southeast through the high regions of the plateau, descends steeply into


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

the hills below, then meanders irregularly through the Yangtze Plain. The river finally dumps its vast contents into the East China Sea just east of Shanghai. The Yangtze's volume is as impressive as its width—1.13 million cubic feet per second, which is admittedly nothing next to the Amazon's 7.73 million, but is good for third in the world. Culturally, the Yangtze holds far-reaching significance. Both Shanghai and Wuhan were built on its banks and have emerged as thriving commercial and cultural centers, while some less populous spots like the Yangtze Gorges have long been revered for their stunning beauty. Economically, it has been no less valuable: the river's large flow rate and width allow for transport of large cargo ships. Additionally, the Three Gorges Dam, located well before the river reaches its most populous cities, is the largest hydroelectric plant in the world.



Yangtze River and Three Gorges

The other member of China's premiere pair of rivers is the Yellow River. Several hundred miles shorter than the Yangtze, it wanders through 3,400 miles in northern China before draining into the Bohai Sea. Much thinner than the Yangtze, it carries only about one-fifteenth of the former's volume, but carries large amounts of silt, often depositing it in the sea. Historically, the Yellow River has been at a high risk for flooding, which is made particularly precarious by the large numbers of people living near it. Chinese officials are working hard to ensure that disasters like the 1887 floods do not occur again, in which over a million people died due to flooding. Like the Yangtze, the Yellow River faces problems stemming from high pollution.



Three Gorges Dam

The longest river system emptying into the Arctic Ocean is formed by the Yenisei, Angara, and Selenga rivers. It is 3,445 miles long, and travels from the hills of Mongolia to the Kara Sea in northern Russia. Because of the climate, much of the Yenisei is frozen during winter months. The Angara River, the middle segment in the system, originates in Lake Baikal. The Ob–Irtysh system is of similar length, touching China, Mongolia, Kazakhstan, and Russia before reaching the Gulf of Ob. Its basin measures about 1.15 million square miles, or about ten times the size of Arizona.

A few other river systems are significant in Asia. The Amur River between Russia and China is part of the Amur–Argun system, which is 2,765 miles long. The 2,750-mile Lena is the longest river entirely inside Russia, while the Mekong travels through Indochina. The Indus is most commonly associated


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

with India, although it splits Pakistan in two and provides valuable water for the dry land. The Brahmaputra River in the Himalayan region is wide and provides a valuable water passageway, and also floods its shores with alluvium regularly.

In Russia, Lake Baikal is fascinating on many levels. The crescent-shaped body of water is the deepest lake in the world with depths of over a mile. Quite large already by area, the combination of surface area and depth make it the most voluminous lake in the world (excluding the Caspian Sea), holding 5,700 cubic miles of water. This amounts to nearly one-fifth of the world's freshwater—about the same amount as all five American Great Lakes combined. Baikal is also among the clearest and therefore most beautiful lakes on the planet, and it is a huge depository for biological diversity. Lake Baikal lies in a ***rift***, one of Earth's deepest.



Lake Baikal

Lake Issyk Kul is another important lake in Asia. It is located entirely in Kyrgyzstan in a cold mountain region, but it stays ice-free year round. The bottom of the lake descends to over 2,000 feet below the surface, and the waters are replenished by ***hot springs***. In Western Asia, the Caspian Sea borders on Iran, Kazakhstan, Russia, Turkmenistan, and Azerbaijan. In Kazakhstan and Uzbekistan, the Aral Sea once occupied a large area and spawned a large fishing economy. Intensive irrigation has sucked the sea nearly dry, however, and now it is a fraction of its former size. The ***desertification*** has posed huge economic and health problems for the region, which depended on the fisheries and the sea's water for its livelihood and is now threatened by pollution.

## *Life Principle*

All of life is like a river. Eventually it reaches the destination affected by life choices.

**Unknown**



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

## Chapter 5



**Lesson 4**
*Climate and Precipitation*

**Section 1**
*Lessons 1-5*

**Climate and Precipitation of Asia**



Cherrapunji Waterfall

Cherrapunji, India

Cherrapunji, located in the Seven Sisters region of India, is isolated from the mainland geographically, politically, religiously, and culturally. Climatologically, this town of 10,000 is like no other place on Earth. It is widely considered the wettest place in the world, receiving 450 inches a year—over 37 feet. As is the case with all averages, some years produce dramatically more rain. During a twelve-month period in 1860-1861, 900 inches fell, including 366 in one month. Yet this soggy tropical village faces an unthinkable crisis every winter: drought. For several months, residents must trek to nearby water sources to obtain potable water, and plants and agricultural interests suffer direly. It is a truly bipolar climate, where summers bring flooding and rainfall not seen anywhere on the planet and winters leave the land thirsty and aching.



Norilsk, Russia

Any town or village able to mount a claim to fame like this is sure to benefit greatly, so Cherrapunji's opponents have lined up to dethrone it. Hawaii nominates its Mount Waialeale for the title, citing data that shows the peak endures some years when rain falls every single day. Recent data has put Cherrapunji's neighboring town of Mawsynram slightly ahead of it in the rainfall count, with around 39 feet annually over the past several years. But regardless of the precise measurements, Cherrapunji is remarkable in its seasonal climate variation, a phenomenon that owes to the source of its rain and its geographic

### VOCABULARY

***Permafrost***: permanently frozen ground found in the tundra
***Semiarid***: somewhat dry
***Aurora borealis***: bands of light appearing in the northern sky at night; northern lights
***Zud***: Mongolian phenomenon of heavy winter snowfall causing large-scale livestock death due to an ability to find fodder
***Tsunami***: series of large waves caused by tremendous disturbances in the ocean, often an earthquake



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

situation. In this far eastern swath of India, precipitation is supplied by summer monsoons that pound the coast, carrying saturated ocean air to the hills nearby. These air masses must often cool before releasing their contents, and the higher elevations where Cherrapunji lies provide the perfect place for this. Because the monsoonal conditions are behind the climate, however, conditions take a sharp turn when monsoons dry up; hence the dehydrated winters.


Cherrapunji Waterfall

Cherrapunji, its surrounding region, and virtually all of Southeast Asia lie in a tropical wet climate zone, and they are just one example of the climate extremes found throughout the largest continent on Earth. Ten distinct climate zones claim territory in Asia, ranging from Siberian ***permafrost*** to scorched Arabian deserts, from windy, rainless Chinese plateaus to the soaked islands of Indonesia. Generally, these vary intuitively according to latitude, but, as always, factors such as elevation and location of precipitation-shielding mountain ranges can far outweigh latitude in determining conditions. The tundra in northern Russia covers a small sliver along the Arctic Ocean and in the Kolyma Mountains, while the better part of Russia is subarctic taiga. A humid continental zone cuts into the taiga just east of the Ural Mountains, reappearing in the northeastern part of China known as Manchuria and the Koreas. From here all the way west to Saudi Arabia, ***semiarid*** and arid zones mix across dry steppes and deserts—these vast, open spaces can conduct high, moisture-sucking winds, and they illustrate how dry much of Asia truly is. The Tibetan Plateau and the Himalayas form a broad highland zone, which also exists on some mountains of Indonesia. The plains of India and China, as well as parts of Bangladesh, Laos, and a few other countries, have a humid subtropical climate, and southern India and Indochina are tropical wet and dry. Southeast Asia is predominantly tropical wet. In the Middle East, small bands of Mediterranean climate dot the landscape from Turkey to Turkmenistan.

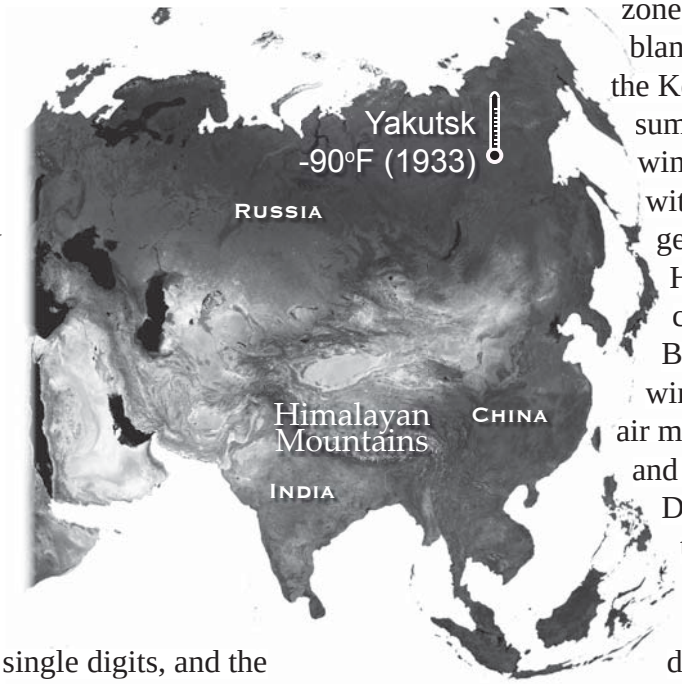

Norilsk, Russia

Across the tundra in Siberia, conditions are exceedingly harsh, a fact reflected by population patterns. The population density of Siberia—which at 5 million square miles constitutes most of Russia—is about eight people per square mile. Even this figure is misleading, as most of the population live in cities, leaving vast areas of land untouched by human habitation. A few small towns have sprouted in the tundra—towns like Pevek and Tiksi, with just a few thousand people who brave sub-freezing temperatures most of the year, compounded


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

by harsh winds unobtruded by trees or hills. Norilsk is the largest city here, 135,000 residents strong. These residents endure an average annual temperature around 15°F and snow cover about 270 days a year. Northern Siberia's location in the Arctic Circle means daylight hours are atypical: for several weeks every winter, the sun does not rise at all. On the flip side, the ***aurora borealis*** provide a spectacular nightly dance at these high latitudes.

In subarctic areas where the ground does thaw out, conditions are slightly more tolerable—but only slightly. Irkutsk, one of the larger cities in Siberia, sees summertime highs in the 70s, with especially warm days topping 80°. In December and January, however, highs often remain in the single digits, and the city has recorded lows colder than -50°F. Wind chills, whose ability to turn a cold day into a brutal one is heightened in these cold regions, are not quite so pronounced in the subarctic due to the tree cover. Although much of the land here is flat and a fantastic breeding ground for winds, the forests provide important barriers that slow the winds. Areas near lakes are often slightly milder—Irkutsk is a prime example, warmed by its proximity to Lake Baikal. Still, few people choose to live in these parts, and with good reason. One of Siberia's more dubious claims to fame is that it hosts the coldest inhabited place on Earth—Yakutsk, where a temperature of -90°F was recorded in 1892.




Asia's two humid continental zones lie in central Russia and Manchuria. The central Russian region is much colder than the eastern, locked as it is in the interior and far from the warm ocean waters. This region is warmer than the surrounding taiga, but its location deep in the interior means heavy winter snowfalls still occur. Beijing, China is typical of the Manchurian zone, which also blankets most of the Koreas. Beijing summers are hot and winters are cold, with fall and spring generally pleasant. Heavy snowfall can descend on Beijing during the winter, and Siberian air masses both cool and dry out the city. During the summer, temperatures get warm, and rainfall is prevalent due to nearby monsoons. Humidity varies accordingly, with high moisture in the summer and little in the winter.

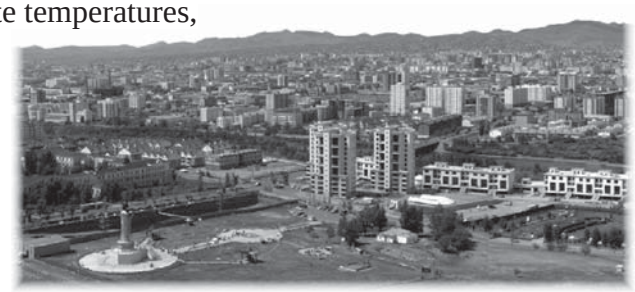
Although much of Asia falls under a semiarid classification, this designation serves only loosely to tie the region together. Across the picturesque Mongolian steppes, precipitation is somewhat scarce. The rainiest regions receive around fifteen inches a year, the driest just a few. In the colder and more mountainous regions, much of the precipitation can fall as snow. While the actual measurements may be decent in these regions, precipitation as snowfall is sometimes less helpful to plants


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

and wildlife, so the dryness is more taxing on local ecosystems. Asia's sheer size means that some interior lands are far more distant from the ocean than in, say, South America, so places like Kabul, Afghanistan sport distinctly continental versions of the semiarid climate. Afghanistan's capital city heats up dramatically during the summer—July averages regularly top 90°F—but on frosty winter days, the mercury often dwindles below 20°F. 24-hour temperature swings are also drastic here, as nighttime temperatures can drop chillingly low even in summer. A phenomenon called the ***zud***, an extremely cold and snowy winter, ravages Mongolia occasionally and can kill huge numbers of livestock because they cannot find food beneath the thick snow cover.

In the varied and far-flung deserts of Asia, climate conditions can diverge surprisingly, with the one unifying factor being very little precipitation. As mentioned earlier in this chapter, the Arabian desert in Saudi Arabia is one of the hottest and driest areas in the world. The desert is large and wide, and although the Red Sea and the Persian Gulf flanking the country moderate temperatures, they are too small to have a huge influence. In the open desert, summer highs can top 120°F, plummeting to levels where a jacket is required at night. Conversely, winters can be unexpectedly cold, not so much from outright temperatures but from wind chills. Across the continent in Mongolia's Gobi Desert, summers are warm and winters cold, with even more extreme seasonal changes. In Ulan Bator, the Mongolian capital, record highs have thrust heat levels to 93°F, and record lows have plunged to -52°F. The same is true in landlocked Kazakhstan and the high plateaus of Iran, among other desert regions. Interestingly, the eastern rim of the Mediterranean Sea does not reflect a Mediterranean climate, but is instead dominated by the Syrian Desert. Near the Mediterranean shores, Jordan and Syria have blistering summers, sometimes clocking heat in excess of 100°F for multiple days on end.

The Tibetan Plateau and certainly the Himalayas to the south have a decidedly highland climate, and relatively few people have opted to experience it by settling here. Ice and permanent snow cover are the norm in western China, whose elevations are higher than many tall mountains elsewhere in the world. The towering Himalayas are a barrier to monsoonal winds from the Bay of Bengal and block virtually all precipitation from heading north, so the Tibetan Plateau is quite a dry region. The high elevations across the plateau keep it cold here, and, of course, winds increase and temperatures drop in higher mountain elevations. Katmandu, Nepal is located at the confluence of several climatic regions, so weather is often unpredictable.


Ulan Bator, Mongolia

Most of the populations of India and China live in the plains, home to a humid subtropical climate. In Shanghai, China, summers are warm and winters are cool to mild. Monsoons exert a presence here, bringing heavy rains from June through


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

September, but snowfall is rare. New Delhi, India is similar: average highs range from 58°F to 92°F, and most rainfall comes during summer. Places farther inland demonstrate more noticeable seasonal temperature swings, and are increasingly protected from the monsoons.

In southern India, Sri Lanka, Indochina, and the islands of Indonesia, the primary variable in climate is not temperature, but rainfall. These areas are all located near the water, and as they increasingly approach the Equator, temperatures tend to remain fairly constant from season to season. Indonesia is located on both sides of the Equator and is perhaps the best example of how steady ocean temperatures keep land temperatures somewhat stable. Much of the rain here falls during winter months, and humidity levels are uniformly high year-round. Monsoons exert an influence here, as well. On the higher slopes of Indonesia, highland climates reappear, although usually without the accompanying heavy snowfall and extremely cold temperatures.


Sumatra After 2004 Tsunami

Just as hurricanes pound the U.S. Southeast and East Coast regularly, Asia has its fair share of storms and weather-related disasters. Hurricanes are alternately called typhoons and cyclones in many places in Asia, but their essence is the same: heavy rains, damaging winds, and massive storm surges. Tornadoes, most commonly associated with the United States but present elsewhere, also ravage dry regions of Asia. The deadliest tornado in history actually occurred in Bangladesh in 1989, killing 1,300 people. ***Tsunamis***, though perhaps not as noted for raw power as tornadoes, can be far more dangerous. A 2004 earthquake in the Indian Ocean triggered a tsunami that battered many countries throughout Southeast Asia, killing more than 250,000 people in the worst tsunami disaster ever recorded.

## *Life Principle*

It is an old saying that everyone talks about the weather, but no one does anything about it. In other words, perhaps our time would be better spent discussing the things over which we have some control, rather than complaining about those we can't change.

**Unknown**


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

## Chapter 5

**Lesson 5**
*Vegetation and Wildlife*

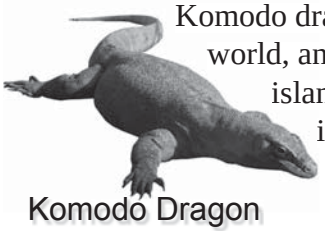
**Section 1**
*Lessons 1-5*

**Vegetation and Wildlife of Asia**



Ask the average American to draw a picture of a lizard, and he'll most likely illustrate something distinctly American. Many will depict something several inches long, perhaps a translucent pink or brown color, because that's what they see running across their kitchen floors or back patios. Undoubtedly, the picture will vary by region. Residents of Arizona or New Mexico may draw the orange-banded Gila monster, the plump venomous lizard that roams the deserts of these regions and has earned a considerable reputation. Americans in Eastern states may sketch something more colorful, perhaps a bright green or blue, because these colors provide better camouflage in the waters where lizards spend much of their time. In Texas, you're likely to see a horned toad—which is actually not a toad at all, but a spiny variety of lizard prevalent in the state and the mascot of Fort Worth's Texas Christian University. And most certainly, scores of TV-watching Americans will draw Martin the Geico Gecko, smiling and perched next to the trademark blue "GEICO" letters.

Ask the same question in Indonesia, and you're bound to get a different set of pictures entirely. Although the archipelago nation is stocked with lizards of all shapes, colors, and sizes, many people's mental picture is the Komodo dragon. It is the largest lizard in the world, and it lives on several Indonesian islands, including Komodo, from where it derives its name. Up to ten feet long and 150 pounds, the reptile truly redefines the word "lizard."



Komodo Dragon

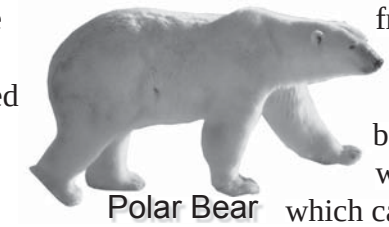
## VOCABULARY

***Carnivore***: principally meat-eating animal
***Herbivore***: principally plant-eating animal
***Deciduous***: characterized by leaves that shed seasonally
***Opiate***: narcotic drug derived from the poppy and containing opium derivative
***Canopy***: highest part of a plant community comprised of plant crowns



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

Explanations for its large size focus on an absence of other large ***carnivores*** on the contained islands, and its size has given the dragon a feared status despite its timidity around humans. It exhibits a number of interesting behaviors: some adults are cannibals and prey on younger individuals, and despite chiefly being scavengers, the animal will kill for its food if necessary. Indonesia has recognized the animal by featuring it on its coins, and it has been featured in various films, especially B-movies and low-budget horror flicks.


Polar Bear

The Komodo dragon is a superb example of the fascinating and exotic wildlife found in Asia, wildlife often severely limited in its range. A variety of widespread and rare plants also inhabit the landscape, even in spite of the desert cover that typifies large areas of the continent. Asia has more vegetation zones than any other continent—twelve distinct regions, most of which are actually significant in size. In addition, a plethora of indigenous animals calls these zones home. Many are familiar to non-Asians—parrots, dolphins, monkeys—but some are uniquely Asian and are famous for it. The endangered giant panda, native to China, is a favorite zoo attraction around the world, and fortunately its numbers are rising due to intense global awareness and captive breeding programs. High-profile animals like the Sumatran tiger, the peacock, and the seldom-seen snow leopard live here as well.



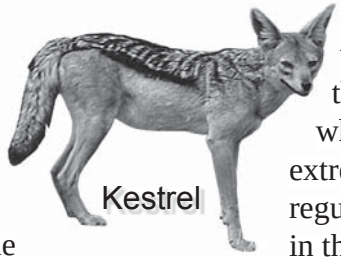

There are three main vegetation zones in Russia. In the north, the tundra is sparse and barren, and small shrubs, grasses, and fungi are the only real forms of vegetation. During summer, melting snow and ice form marshy puddles in places, bolstering plant growth temporarily. Caribou and polar bears roam the tundra freely, the former in large quantities. Thick fur coats, especially in the case of polar bears, allow these animals to withstand the frigid wind chills, which can cause frostbite in humans in seconds.

Most of Siberia is coniferous forest. The evergreen trees here stand up to the cold temperatures and have a distinctively northern appearance: straight narrow trunks, few major limbs close to the ground, and close proximity to one another. Common varieties include spruce, pine, and fir. Wildlife here is broader. ***Herbivores*** like reindeer and moose call the Siberian forest home, and they try to steer clear of predators like the brown bear, wolverine, and lynx. Large numbers of the world's wolf population live in Siberia, as do porcupines, foxes, and ermines.

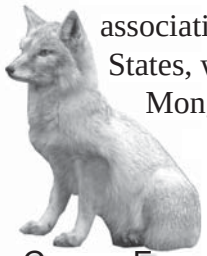
In southern Russia, ***deciduous*** forests survive the warmer regions. The most common trees are larch and birch, though walnut, apple, cherry, and others can be found. Animals are typical of those present in cooler biomes in the Americas. Deer, foxes, rabbits, squirrels, and many species of falcons and hawks find shelter in the forests, while snakes and tortoises make their homes in the ground and


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

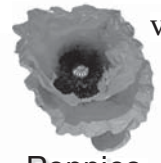
near water sources. Other important animals include bears, antelope, leopards, kestrels, jackals, and mink.


Kestrel

Much of eastern China is deciduous as well. Across the plains of Mongolia and Kazakhstan are two vegetation zones, an area of grassland in the north and low scrub in the south. This land is referred to as the Eurasian Steppe or the Great Steppe, as it is the largest steppe in the world. Mongolia's section is the easternmost part of the belt that begins in central Europe and extends across southwest Russia and most of Asia. The predominant plant here is millions of acres of grass, uninterrupted by trees or shrubs. A few low plants survive, such as vernal, sagebrush, and tumbleweed—which, despite its association with the western United States, was actually imported from Mongolia.


Corsac Fox

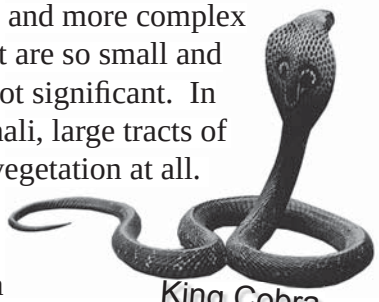
Animals in the region are notably smaller than in the forests farther north, which receive more rainfall and offer more vegetation for food. Foxes like the Corsac fox, gerbils, and small lynxes call the steppe their home, while falcons soar above it, able to return to wetter areas at night. One of the larger animal species is the Saiga antelope, a profoundly odd-looking creature with a huge nose. The nose helps the antelope endure the cold, dry regions it inhabits by filtering dust in the air and warming its body. Wolves and large cats, like cheetahs and leopards, also prowl rugged regions of Kazakhstan and western Mongolia. In the Iranian scrublands, antelope and gazelles attempt to avoid the predatory panthers and cheetahs, some of which are critically endangered.


Poppies


Rhododendrons

In the far west of Asia, most of the Arabian Peninsula is desert, and the vegetation and wildlife reflects it wholly. Some areas receive extremely little rainfall, but regularly carry moisture in their atmospheres, courtesy of nearby bodies of water that allow desert plants to withstand dry conditions. These include various types of cacti, tamarind and acacia trees, and small shrubs. Oases host date trees and more complex vegetation, but are so small and few they are not significant. In the Rub' al Khali, large tracts of land have no vegetation at all. Animals exert somewhat of a stronger presence, including desert-adapted species like lizards, badgers, hyenas, oryxes, and the sand cat. Various insects and arachnids, including the highly venomous death stalker scorpion, also live here. Several kinds of venomous snakes, including vipers and cobras, can be found.


Tamarind Pods


King Cobra

Eastward, the Tibetan Plateau and the towering Himalayas are sparsely vegetated, but for different reasons. It, too, is dry, but exceedingly cold; few trees offer shelter to native plants and animals. On lower mountain slopes, evergreens proliferate, but in the highest reaches, few plants of any kind survive. Some of the world's most brilliant flowers are found here: rhododendrons, poppies, violets, nettles, and dozens of species of lilies. The poppy, one species of which is


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

cultivated for use in ***opiates***, has its largest numbers in the world here. Poppies have gained a reputation because of their narcotic effects, and films from *The Wizard of Oz* to *Batman Begins* have utilized them. Animals in the Tibetan Plateau include deer, antelope, foxes, and yaks. The mysterious snow leopard is seldom seen due to its high altitudes, but nonetheless has been hunted nearly to extinction. In the skies, partridges, griffons, cranes, cocks, pheasants, and hawks soar amidst snowy mountains.


Bamboo

East China lies in a subtropical broadleaf evergreen forest zone, with trees including cypress, fir, and larch. Many animals found elsewhere live in this part of China as well—deer, foxes, antelope—while wildlife unique to these plains include takins, alligators, a Chinese version of the tiger, and giant pandas. Parts of India, including much of the southern reaches, are considered savanna, where acacia trees intermingle with roses, jasmine, and lotus blossoms. In the northeast, much of the country is scrubland, where low woody plants thrive. It is host to some of the largest and most venomous snakes on the planet, including the king cobra and Russell's viper. In this country, a combination of few doctors, lack of access to adequate medical treatment, and a large rural population who live far from hospitals conspire against snakebite victims, 50,000 of whom die each year.


Vampire Bat

From Bangladesh through Southeast Asia, most of the land is tropical rainforest, where large trees form dense ***canopies*** over smaller plants below. Bamboo, mangrove, durian, tualang, kapok, redwood, and other trees are scattered throughout Indochina and the islands of Indonesia. Smaller plants include herbs like gingko, as well as cinnamon, mangos, tea, and turmeric. The reticulated python, the world's longest snake at up to thirty feet, lives throughout the area. Jungle wildlife, from monkeys and bats to large tigers, vipers, and rhinoceros, live in the dense brush and undergrowth in the region.

# Life Principle

*It matters not how long we live, but how.*

**Philip James Bailey** (1816-1877),
19th century English Poet



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

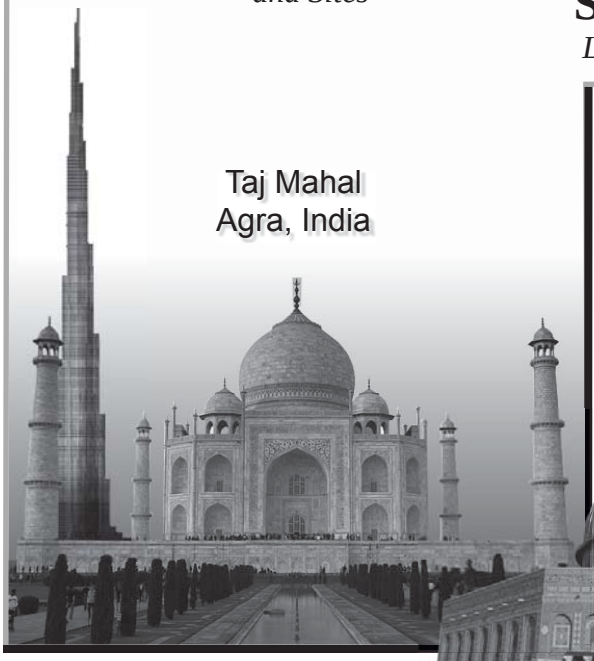
## Chapter 5



**Lesson 6**
*Famous Events and Sites*

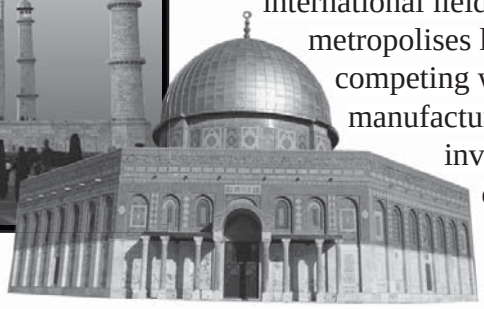
**Section 2**
*Lessons 6-10*

**Famous Events and Sites of Asia**



Taj Mahal
Agra, India

Many Westerners may not know it, but an urban world is thriving in the deserts of Arabia. Far from glitzy and modern Times Square, far from the soaring glass skyscrapers of Chicago, far even from developed and bustling hubs in Europe, a modern culture has emerged from the dust of the Arabian Peninsula. On international fields, sprawling and affluent metropolises like Qatar and Dubai are competing with Western cities—manufacturing products, securing investments, projecting cultural and commercial trends and capitalizing on them. Discovering this is often strange to many Americans, whose mental image of Arabia is defined foremost by camels and coffee, and perhaps natives in elaborate traditional robes. But indeed, on the back of a few key industries, Arabia has rapidly become an industrialized powerhouse, raising impressive skylines that hold their own against those of many U.S. cities.



Dome of the Rock

In the heart of the United Arab Emirates, located just east of Saudi Arabia on the Persian Gulf, lies Dubai. The largest city in the country, it is home to about 1.5 million people and has consistently scored high on both cost of living and wealth lists, topping the Middle East. Centered amidst towering high-rises downtown is Burj Dubai, also known as Burj Khalifa, a 2,717-foot-high office tower that opened in January 2010. The skyscraper is the tallest manmade structure of any kind ever built, nearly twice as tall as New York City's Empire State Building and dwarfing the previous record-holder, the 1,671-foot Taipei 101. So tall is Burj

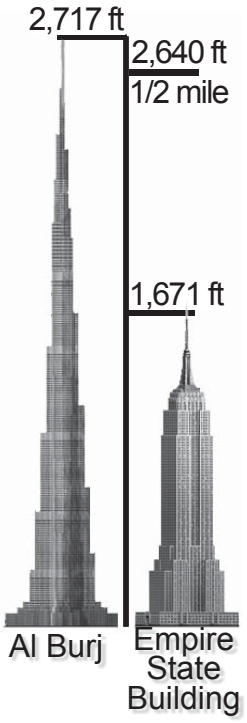
## VOCABULARY

***Mausoleum***: external free-standing building constructed as a monument enclosing the interment space or burial chamber of a deceased person
***Barracks***: group of buildings used by military personnel as housing
***Shrine***: place of worship hallowed by association with some sacred thing or person



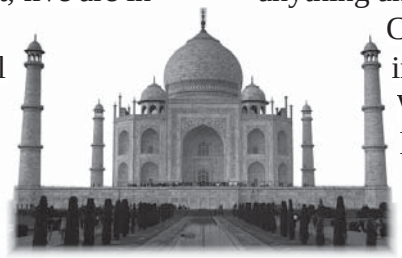
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

Dubai, in fact, that panoramic photos of Dubai's already imposing skyline are now slightly comical. The price tag on the project, which was constructed by a firm notorious for ambitious architectural projects, was equally stratospheric: $1.5 billion. While the list of the world's tallest buildings is a continuously shifting one, Burj Dubai thrusts the city into the international spotlight once again, and even in a shaky economy is sure to generate substantial tourist receipts.




Burj Dubai is perhaps the newest addition to the must-see places in Asia, but despite its incredible engineering, is likely not the most important. Asia's most famous sites and hottest tourist attractions run the gamut of backgrounds, from ancient historical locations to state-of-the-art new theme parks. It is perhaps logical because the continent is so vast and populous, but many Westerners are no doubt more familiar with Asian culture than with, for example, European, because so many Asian sites are famous and celebrated around the world. Warner Bros.'s 2007 film *The Bucket List* centers on American mechanic Carter Chambers, who compiles a list of things he wants to do before he dies, or as the saying goes, "kicks the bucket." Of the twenty items on his list, five are in Asia, including visiting sites such as the Taj Mahal and Hong Kong. Many Americans' lists would probably be similar. Asia is a place that incorporates so much history, whose culture is in many ways so far removed from modern America, that its monuments and attractions hold a special allure found in few other places.

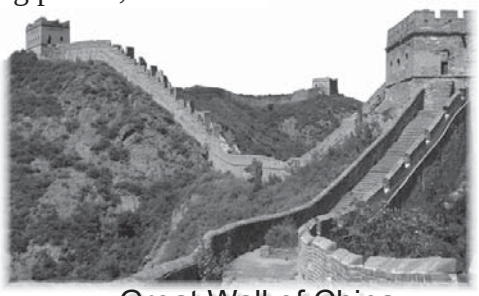
It is difficult to pick a place to begin when examining Asia's most important sites, but certainly as good a choice as any is the Taj Mahal. Located in the North Indian city of Agra, the stunning white domed complex is essentially a colossal ***mausoleum*** dating to the 17th century. It was erected by the Shah Jahan, ruler of the Mughal empire that once occupied present-day India, for his favorite wife, who died in childbirth. The 213-foot high monument is impressive, both for its beauty and as a symbol of love, as accounts state that the emperor sank into a deep depression after his wife's death. Between two and four million visitors frequent the Taj Mahal each year, making it India's top tourist destination. A tall minaret is located at each corner of the main plaza surrounding the tomb, and a large complex of smaller buildings borders the main building.


Taj Mahal

If the Taj Mahal is the crown jewel of India—and it certainly is—then the Great Wall of China fills the same role in the world's most populous nation. While the wall does not receive high marks for visual splendor, as a feat of engineering it outstrips anything any other country could offer. Constructed of earth, stone, and, in some sections, bricks, the Great Wall is actually a 4,000-mile-long series of walls erected from the 5th century BC to the 16th century to protect the Chinese Empire from horse-mounted

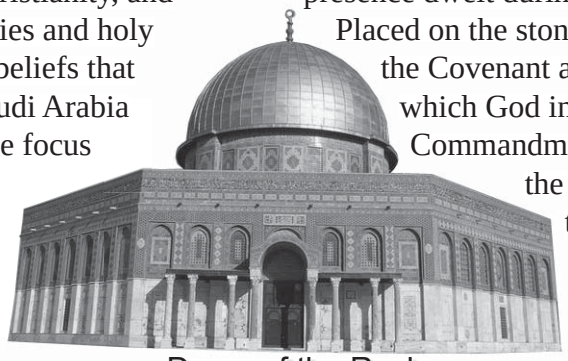

© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

enemies. It is located in northern China and features regularly spaced watchtowers and protective cells, which allowed for guards' communication and defense. Because it was built over such a long period, the wall is broken in many places, victim to erosion and destruction by both armies and modern developers. In some places, parallel stretches of wall run in close proximity, while in others, solid and preserved sections cut through the terrain. Some estimates claim that hundreds of thousands of workers were involved in building the wall, many of whom died and are buried near it. Precise statistics on the number of annual visitors are scarce, but some peg the number around ten million. Tourists can walk along the top of the wall and look inside watchtowers and ***barracks***.


Great Wall of China

Just as Latin America boasts some of the world's most ornate cathedrals, Asia has its fair share of religious monuments and locations. Four main religions share Asia—Islam, Hinduism, Christianity, and Buddhism—and their histories and holy places are as diverse as the beliefs that undergird them. Mecca, Saudi Arabia is Islam's holiest city and the focus of the hajj, the once-in-a-lifetime pilgrimage that Islamic law commands. The city's significance owes to the fact that Islam's chief prophet, Muhammad, was born and purportedly received his first revelation here, and it rose to prominence steadily as the young religion spread. Today, Mecca is one of Saudi Arabia's largest cities and is closed to non-Muslims; it has the largest mosque in the world, Masjid al-Haram. Upwards of four million people pack inside the mosque for worship during these pilgrimages. A significant service sector has grown up around the hajj, including buildings such as the Abraj Al Bait Towers, an immense mixed apartment and hotel complex near Masjid al-Haram.

In Jerusalem, Israel, Islam's hold is much less widely accepted. Christianity, Islam, and Judaism all recognize Jerusalem as a holy city, albeit Christianity and Judaism have far deeper ties to the city than Islam. The Dome of the Rock is an Islamic ***shrine*** built on a historic site in Jerusalem's Old City. Muslims cite its central monument, the Foundation Stone, as the place from which Muhammad ascended to Heaven. Jews, who have historically been the city's principal occupants and from whom Christianity sprouted, argue that the Foundation Stone is the location of the Holy of Holies, the place where God's presence dwelt during Biblical times. Placed on the stone was the Ark of the Covenant and the tablets on which God inscribed the Ten Commandments. The Dome of the Rock has stood on the spot since 691 and is an object of value to Jews and Muslims. Jews in Jerusalem can be seen regularly praying at the Wailing Wall, a site near the Dome that was built by Herod the Great. Golgotha, the hill where Jesus Christ was crucified, is located near the Old City. An Eastern Orthodox


Dome of the Rock


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

church, the Church of the Holy Sepulchre, stands on the traditional site, although some historians doubt whether this site is accurate.

Far across the continent, Thailand mixes Buddhist sites with tourist hotspots. Wat Phra Kaew, the nation's holiest Buddhist temple, is located in historic Bangkok and is home of the Emerald Buddha, a famous statue of the sitting Buddha. The temple is part of Bangkok's Grand Palace complex, which dates to the 18th century and serves as the royal residence and headquarters. The palace is a large and ornate example of Southeast Asian architecture, blending dramatic rooflines, gold spires, and a distinctly European renaissance style. On the coast of Thailand, world-class beaches draw hundreds of thousands of tourists and sun worshippers. Patong Beach, Krabi, and Phuket Island are some of the most popular. Bangkok is also an important business travel destination and was the world's third most visited city in 2007.

Istanbul, Turkey is situated at the intersection of two continents, and its most famous place is appropriately steeped in history from both. Hagia Sophia is an architectural marvel in Turkey's most populous city, a museum that was once both a cathedral and a mosque. An evidently massive and significant church existed on the site in the 4th century, but it no longer stands. The current edifice dates to the 6th century, built by the Eastern Roman emperor as a replacement for the earlier structure. This church survived until the 15th century, when the Ottoman Empire captured Istanbul (then Constantinople) and turned the church into a mosque. Turkey has been a predominantly Muslim country since then, and no threats against Hagia Sophia have changed its purpose. In 1935, Turkey converted the building into a museum. Architecturally, it is considered one of the finest examples of Byzantine architecture, which blended elements from Arabic, Greek, Roman, and Western traditions. Not far away from the museum is the Bosphorus Bridge, a mile-long suspension bridge that spans the Bosphorus Strait and thus connects Europe with Asia.


Hagia Sophia

In Beijing, China, the Forbidden City draws at least seven million visitors every year to see the palace that oversaw the Chinese Empire from the 15th to 17th centuries. The palace is actually a huge district of nearly a thousand buildings, totaling eight million square feet, and houses Tiananmen Square, the largest city plaza in the world. The square was the center of the Ming Dynasty during the Chinese Empire and is currently the central square in Beijing, China's capital. It attracts demonstrations, gatherings, marches, and protests on a regular basis, some of which are significant. In 1989, heroic young demonstrators opposed oppressive communist policies by facing tanks, guns, and prison to fight for freedom. The event has since become known as the Tiananmen Square Massacre.

Aside from history and religious sites, Asia offers plenty in the way of outdoor experiences. The Himalayas are the world's highest mountains and are popular with climbers in the region—and out, for that matter. Peaks such as Mount Everest, Lhotse, and K2 are among the highest in


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

the world and are predictably among the top destinations for mountaineers, despite the hefty fees levied on the mountains' challengers and the dangers they pose. Mount Fuji, Japan's highest summit, is just 12,388 feet high, but as an iconic symbol of the island nation it is frequented by tourists, hikers, and mountaineers. Iran's Mount Damavand is popular in Central Asia. Beaches in Bali, Indonesia; Boracay, Philippines; and islands throughout Malaysia are among the world's cleanest and most picturesque.

Some important places in Asia are not historical or natural, but are still popular. Tokyo Disneyland brings in about 13 million visitors annually to its rides and attractions, where families can spend entire weeks watching shows and sampling the park's tasty food offerings. Hong Kong is a special district of China and, enabled by its large degree of self-governance, has adopted one of the most capitalistic policies of any place in the world. Its standard of living has risen accordingly, as today Hong Kong is Asia's commercial and financial capital and one of the most expensive cities on Earth. In Kyonggi-Do, South Korea, Everland is one of Asia's most visited theme parks, complete with a zoo and waterpark. In Astana, Kazakhstan, the dazzling Bayterek tower is a monument to the city's rise to prominence and the oil money with which Kazakhstan has improved its infrastructure and economy.



Bayterek Tower

# *Life Principle*

*'Tis a lesson you should heed:*
*Try, try again.*
*If at first you don't succeed,*
*Try, try again.*

**William Edward Hickson** (1803-1870),
19th century English writer



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

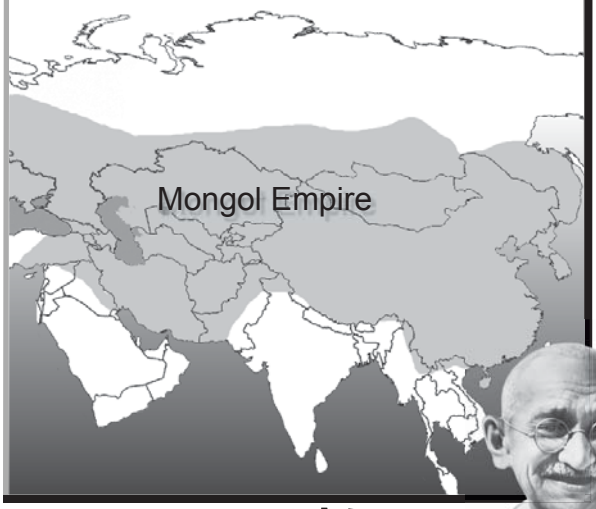
# World Geography

## Chapter 5

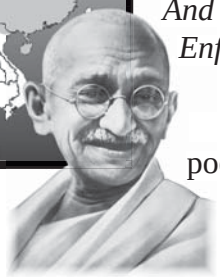
**Lesson 7**
*Races and Ethnicities*

**Section 2**
*Lessons 6-10*

**Races and Ethnicities of Asia**




*In Xanadu did Kubla Khan*
*A stately pleasure-dome decree:*
*Where Alph, the sacred river, ran*
*Through caverns measureless to man*
*Down to a sunless sea.*
*So twice five miles of fertile ground*
*With walls and towers were girdled round :*
*And there were gardens bright with sinuous rills,*
*Where blossomed many an incense-bearing tree ;*
*And here were forests ancient as the hills,*
*Enfolding sunny spots of greenery.*



These lines were penned by American poet Samuel Taylor Coleridge, known for his rhyming narrative poetry in the 18th and 19th century. The poem is a popular inclusion in many high school literature textbooks and is actually a historical reflection rather than a whimsical fantasy. Kubla Khan (often spelled Kublai Khan) was a 13th century Mongol and Chinese emperor, the grandson of the great Genghis Khan, and ruler of the largest empire in history. He presided over the greatest extent of the Mongol Empire, which in 1279 stretched over an area twice the size of modern Russia, from Indochina to Scandinavia. Kublai Khan oversaw the development of innovative new technologies in warfare and construction and was emperor when European explorer Marco Polo visited China, so Kublai became a household name in Europe. The poem touches on


Kublai Khan

## VOCABULARY

***Assimilation***: social process of absorbing one cultural group into harmony with another
***Dynasty***: sequence of powerful rulers from the same family, usually over a culture with stable political, economical, and social systems and policies during their rule
***Caliphate***: during the early spread of Islam, a Muslim government ruled by a spiritual leader claiming succession from Muhammad
***Khan***: important leader in some Asian cultures



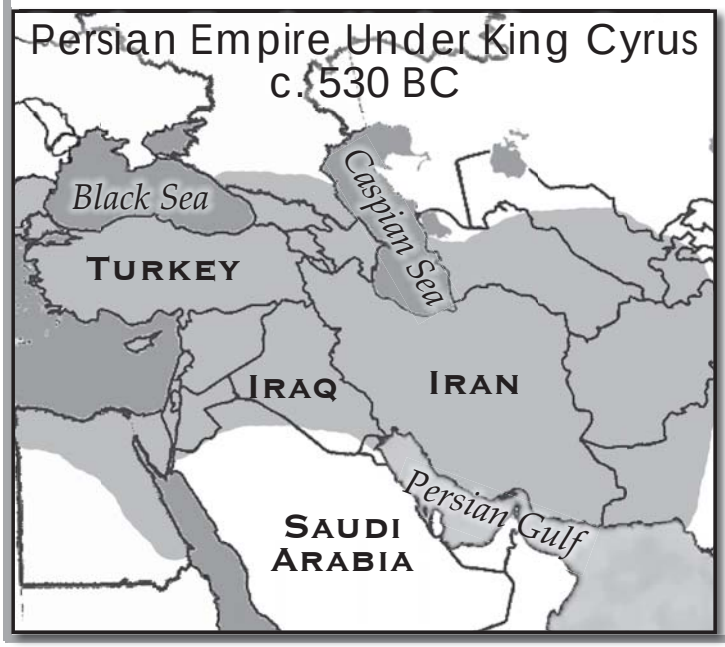
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

some aspects of his power, including the construction and beautification projects he initiated.

Tracing the histories and complexities of Asia's ethnic groups is no small task. The continent's sheer size present the typical problems, such as a large quantity of distinct tribes and people groups, complex patterns of migration and ***assimilation***, and uncertain histories, especially back farther than 2,000 years. About half a dozen major empires controlled large swaths of Asia in its history, often in the form of dynasties that rose to prominence and fell just as quickly. Generally, ethnic groups have proliferated and spread through the vehicles of these empires, as stable political and social conditions within an empire enables the free movement of people and cultures. In some regions, the mixing of once distinct people groups has produced ethnicities sharing characteristics of both, such as the Tartars in Central Asia, who are a blend of Turkic, Arabic, European, and East Asian traits.

If Mesopotamia, located in present-day Iraq, is considered the birthplace of humanity—as most historians believe it to be—then Asia's history dates back further than that of any other continent. Early humans most likely originated in this region and scattered from here, spreading to East Asia several thousand years ago. Archaeological evidence from cliff drawings to rudimentary tools has revealed the presence of humans in China at least several thousand years before Christ, and small empires may have formed as early as 2,100 BC. Some of these Bronze Age and Iron Age cultures were prosperous—India's Indus Valley Civilization likely lasted for 2,000 years, while the Xia Dynasty in China is documented in ancient histories. Japan is believed to have been populated long before either of these civilizations emerged, and Indonesia's history reveals a similar early settlement date.

Around 500 BC, several large empires controlled affairs throughout the majority of the continent. Persia is largely synonymous with modern-day Iran and controlled territory from the Black Sea to Pakistan from the 6th through 4th centuries BC. The empire was founded by King Cyrus, whose descendants turned the Persian Empire into the world's largest empire to date. The Persians warred continuously during their existence, fighting most famously with the small Babylonian Empire and the larger Macedonian Empire, located on the Greek Peninsula. Persia's conflicts with Babylon led to the release of the Jewish people, who had been in captivity for several decades. Its conflicts with



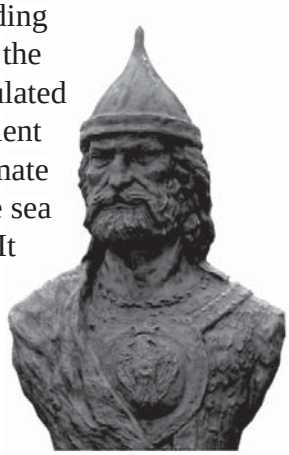


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

Greece are collectively known as the Greco-Persian Wars, one of the better-known ancient clashes for two events. The first came in 490 BC, when the Greeks defeated a much stronger Persian force in a battle at Marathon, Greece. A Greek messenger is said to have run the 26.2 miles from the battlefield to Athens to announce Greece's victory, after which he died on the spot; the modern marathon race is taken from this event. The second event was the Battle of Thermopylae in 480 BC, in which a Greek force of a few thousand held off a Persian army of at least two million for two days. The movie *300* documents the heroic and tragic story, which ultimately helped little to determine the war's outcome.

Across the continent, China and India had forged their own civilizations long before, but faced challenges as they grew during this period. China's Zhou Dynasty lasted from about 1050 to 221 BC, the longest ***dynasty*** in its history. As still holds true today, most of the population was concentrated in the eastern plains, and as proliferation expanded the dynasty's borders, the loosely aligned states became fraught with infighting. On the Indian subcontinent, the Maurya Empire rose from the northern plains in the 4th century BC and united the entire subcontinent, exerting a powerful influence throughout much of Central Asia. The empire was just out of reach for Alexander the Great, a Macedonian conqueror who crushed the Persians and extended Greece's reach to Pakistan during an incredible thirteen-year stretch. European ethnic groups, particularly the Greeks, increased in Asia during this time. Under the Mauryan Empire, the various tribes and groups in southern India were united with the northern, giving India a distinct identity and culture.

Russia developed at a slower pace than other regions of Asia, particularly the desolate forests of Siberia. Slavic and Turkic peoples, including some predecessors of the Mongol Empire, populated the region during ancient times, but a harsh climate and isolation from the sea kept the area sparse. It was from Russia's eastern shores that the first nomads wandered into North America, perhaps a few thousand years before Christ. Much of present-day Russia was populated from the west and gradually saw colonizers cross the Ural Mountains. In the east, East Asian peoples such as the Xiongnu lived in some areas of Russia, and some Russians in the area still retain markedly Chinese characteristics. The Huns were a warlike people who came from Russia in the 4th century and helped usher in the fall of Rome, led by legendary war leader, Attila the Hun.


Attila the Hun

The Roman Empire's ascent to power unified the Mediterranean region under one banner, including parts of the West Asian lands of Turkey, Israel, Jordan, Syria, and Iraq. When the banner split in 285, these lands fell under control of the Eastern Roman Empire, which subsequently became the Byzantine Empire, headquartered at Constantinople. Constantinople maintained significant power in the region for more than a thousand years and mingled Arab and Asian influences with Western, as seen, perhaps most notably, in their architecture. The Byzantines clashed with Arabs over territory and cultural issues for much of


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

their existence in the Byzantine–Arab Wars, which ended better for the Arabs than the Byzantines. Modern Turkish people, and many sizable minorities near Syria, blend European and Arabic traits, with olive skin, generally dark hair, and dark eyes.



Genghis Khan

In the 7th century, Muhammad's experience sparked the birth of Islam, which quickly spread across the Middle East and redefined political boundaries and compositions. Muslim ***caliphates*** filled the Arabian Peninsula and Iran, as well as the Mediterranean rim in Africa. The series of successful migrations and conquests acted as a vehicle not just for Islam but for Arabic peoples. Muslims occupied Jerusalem and quickly spread throughout the region, advancing as far as Thrace. Today's ethnic and religious makeup in the Middle East reflect these realities, and the problems engendered with Christian and Jewish people. Muslims' major challenge in their early centuries was the Crusades, which raged between 1095 and 1291. By the 11th century, the Byzantines had lost control of the Holy Land—historic and modern-day Israel—to invading Arabs, so the government sponsored a series of holy wars to reclaim them. Today, the wars that cost hundreds of thousands of lives are widely viewed as a black mark on both religions—they were likely more politically than religiously motivated, and they ultimately failed to achieve their objective. Ironically, Constantinople fell to invading Ottoman Empire Muslims a few centuries later, who also conquered much of Europe.





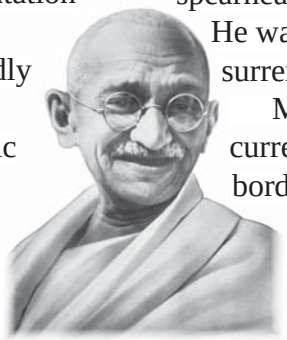


Meanwhile in China, the government was undergoing a succession of dynasties that alternated between strong federal control and an almost confederation type of governance. Various contributions to Chinese culture were made from the early centuries AD through 1644, including construction of myriad sections of the Great Wall of China. The Tang and Song Dynasties were among the longer-lived stretches and led the world in many technological advancements and cities: some Chinese cities were the world's largest at the time. Peace was more sure in the south than the north, where Mongol peoples roamed the steppes of Mongolia and southern Siberia. Both Chinese and Mongol cultures were powerful and butted


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

heads from time to time, and the battles joining them were often cataclysmic, killing hundreds of thousands of men during each battle.

The Mongols rose to power under Genghis Khan, who gained a reputation as both a fierce warlord and a scientific, learned man. Purportedly open-minded about cultural and religious issues, he united nomadic tribes and forged them a common identity as Mongol peoples. During his reign and the reign of his son Ogedei and grandson Kublai, the ***khans*** of Mongolia acquired a vast territory, subduing Chinese peoples and Arab Muslims in the Middle East. The growth is nearly as shocking in its rapidity as its extent, as it occurred in barely seventy years. In China, the Mongol Empire spawned the Yuan Dynasty in 1271, which carried the empire for another century and became powerful in the north.


Mahatma Gandhi

As the Ming Dynasty rose in China and thrust the fledgling culture to the zenith of its history, Islamic colonizers known as Mughals began populating India. They arrived in the early 16th century and lasted on the subcontinent until the mid-1700s, when British colonizers deposed them and assumed control. Mughals brought Arab characteristics, culture, religion, and architecture to the country: the Taj Mahal features elements that are clearly Arab, and India's largest religious minority today is Islam. The subsequent British rule lasted from the mid-18th century to the mid-20th and saw Mahatma Gandhi, an independence advocate who captured the world's attention through nonviolent resistance, spearhead India's independence movement. He was assassinated shortly after Britain surrendered political control of India.

Many ethnic groups came into their current territories and many modern borders were laid in the 20th century. The Turkic peoples established Turkey in 1923, nine years before Iraq established its own kingdom. Israel was reestablished as a nation following the atrocities committed against Jews during World War II as a concession for their historic persecution around the world. The recognition of Israel as a nation sparked a massive influx of Jews to the eastern Mediterranean from cities throughout the Western world.

Western influence has affected Japan for some time, and beginning in the 19th century, Japan began to industrialize and Westernize, a theme explored in the 2003 film *The Last Samurai*. Ethnically, Koreans from both the north and south are very similar and are related to other East Asian peoples, such as the Chinese and Japanese. In Southeast Asia, especially in the Philippines, a heritage of Western colonization has left large numbers of ethnic whites in the area.

# Life Principle

Every human heart is human.

**Henry Wadsworth Longfellow**
(1807-1882), 19th century U.S. poet


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

## Chapter 5



**Lesson 8**
*Languages*




### Section 2
*Lessons 6-10*



If charting Asia's ethnic history is tough, then fully understanding its linguistic realities is an overwhelming challenge. The usual difficulties present themselves: Asia is large and has had complex people movements over the centuries, bringing different languages in contact with one another and creating hybrids that have emerged as distinct tongues. As some languages developed, they strayed far from their roots, embracing vocabulary and expressions often wholly different from the languages from which they evolved. Many continents have similar linguistic problems; Asia is no different. But in some cases, precise origins of and relationships among languages have vanished, leading to differing hypotheses regarding origins. An example of this is the proposed Altaic language family, which would include the Turkic, Mongolic, and Tungusic language groups, as well as Korean and Japanese. Some scholars believe these languages descended from a common language in Central or East Asia; others, however, doubt it. Such uncertainty over many aspects of Asia's languages makes it a particularly fascinating study, but also a particularly frustrating one.

Four primary language families exist in Asia. The largest is probably the Indo-European family, which is spoken in a broken chain of countries from Israel in the west to Russia in the east. The family includes the nations from Iran to India, and also Kazakhstan, but excludes Turkmenistan and Uzbekistan. Close behind Indo-European in number of speakers is the Sino-Tibetan family, which includes Mandarin Chinese, the largest language group



## VOCABULARY

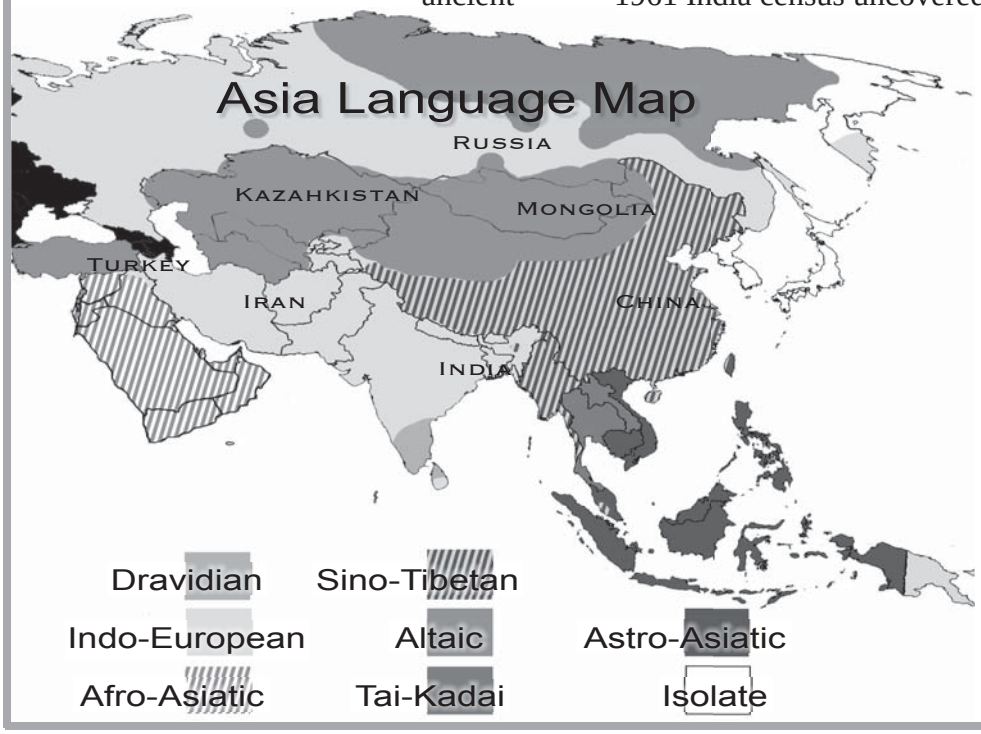
***Logogram***: a single written symbol that represents an entire word
***Calligraphy***: artistic handwriting used to enhance a document's elegance or visual appeal
***Isolate***: in linguistics, a language that cannot be linked to any family
***Phoneme***: the smallest meaningful unit of language, unable to be divided into smaller units


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

in the world. Some minor Sino-Tibetan tongues are scattered throughout Indochina and Southeast Asia, as well. In West Asia, the Afroasiatic language family is spoken throughout the Arabian Peninsula and Mediterranean rim (and North Africa), with most of its 350 million speakers speaking Arabic. Finally, most of Southeast Asia speaks some form of Austronesian languages, including Javanese, Filipino, and Indonesian.

With the exception of Mandarin Chinese, the Indo-European family includes most of the prevalent languages around the world. In Asia, the largest are Hindi, Bengali, Marathi, Russian, Punjabi, and Urdu, spoken in various places around the continent. Indo-European languages dominate the Middle Eastern countries of Iran, Afghanistan, Kyrgyzstan, Pakistan, and India. In some of these countries, multiple tongues compete for dominance among the population. About one-third of Iran speaks Farsi, a derivative of the ancient Persian language. A quarter, most of whom are centered in the northwestern area, speak Azeri, which is carried over from neighboring Azerbaijan. Afghanistan and Pakistan are hodgepodges of languages, as well. Punjabi, an Indo-European tongue dispersed throughout the Punjab region on the Pakistan–India border, is the most widely spoken language in Pakistan, far more prevalent than the official language of Urdu. The languages of Dari and Pashto, both derivatives of Persian, comprise 85% of Afghanistan's population. Despite the apparent diversity and complexity of languages in the Middle East, many languages hail from the same families and the same lineage, and some differences resemble something closer to dialectical differences than differences among entirely distinct languages. Many Middle Easterners are multilingual in reading, writing, and speech.

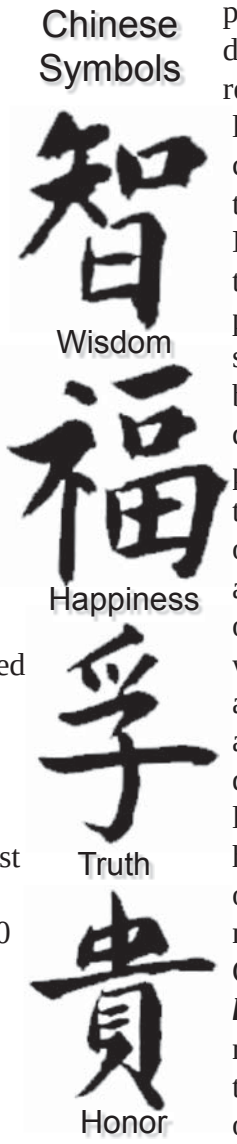
India may well be among the world's largest storehouses of languages. A 1961 India census uncovered nearly 2,000 languages throughout the country, and recent scholarship indicates a few dozen are spoken by more than a million people. Many Indian languages are so alike as to be considered variants of the same language, but even conservative





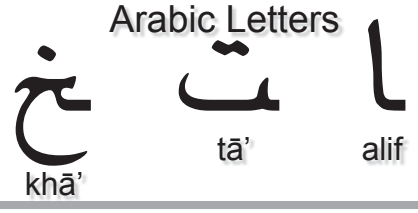
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

counts place the number of Indian languages at several hundred. The most frequently spoken language here is Hindi, used natively by half a billion people and secondarily by at least another hundred million. Urdu, which claims up to a hundred million speakers in India along with others nearby, is similar to Hindi, so similar that the languages are often combined under the Hindustani language. Geographically, most Hindustani speakers live in the populous Indo-Gangetic Plain in India's north. In the far east and west, regional tongues have spilled over from neighboring countries. Bengali has around a quarter billion speakers in East India, while Punjabi is well established in West India. Marathi, the largest language south of the Indo-Gangetic Plain, claims nearly 100 million speakers, including the city of Bombay. Many Indian languages were influenced or birthed by Sanskrit, a classical language from before Christ that plays a liturgical and ceremonial role in Hinduism.




The chief language of the Sino-Tibetan family is Mandarin Chinese, and it is also the world's largest. Estimates of the number of native Mandarin speakers hover around 850 million, with another 500 million using it as a second language. Mandarin is spoken as a mother tongue by about 70% of China. It is interesting to note that Mandarin Chinese's prevalence in China is somewhat disproportional to its geographical reach. While Mandarin is the default language across the majority of the country, large areas in the southeast, the Tibetan Plateau, and the Gobi Desert are given to other languages; these places, however, are less densely populated. Other forms of Chinese, such as Jinyu and Min Nan, are spoken by moderate numbers in the south. The dominance of Mandarin Chinese has produced some controversy, with claims that the government engages in a policy of Sinicization, or extensive cultural and linguistic assimilation. Critics of this policy allege that assimilation, which can introduce Mandarin words and phrases into foreign languages and gradually bring about their deterioration, has caused China to lose parts of its linguistic and cultural history. Practically speaking, this is often done through transliteration of minority languages' words into Chinese. Chinese does not use an alphabet but ***logograms***, small icons or glyphs that represent words or sounds. With more than 2,000 characters, Chinese is one of the more difficult languages in the world, and students take years to develop their handwriting and vocabulary fully.

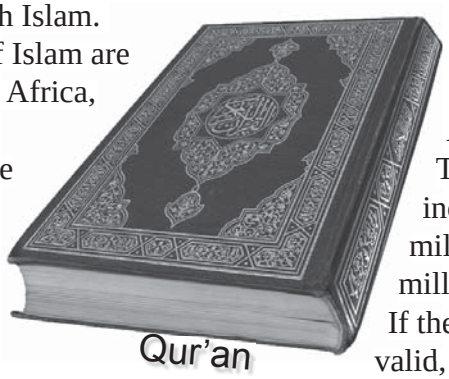
While Mandarin and some other East Asian languages are written and read from top to bottom, Arabic defies this convention and the more standard left-to-right reading. Arabic is read from right to left and employs an alphabet with twenty-eight characters. This alphabet is the second most widely used alphabet in the world behind the Latin alphabet. Arabic





© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

originated in the 7th century, around the time Islam was born, and, as such, it has long been identified with Islam. Many different forms of Islam are found throughout North Africa, Arabia, and the Middle East, and while some are quite similar, others go beyond dialectical differences. The most common version is Standard Arabic, which is the official language in Syria, Jordan, and the entire Arabian Peninsula. In addition, most Iraqis speak versions of Standard Arabic, and some Iranians understand it, as well. The version of the language called Classical Arabic is the liturgical language of Islam and is the language of the Qur'an. In all its forms, Arabic encompasses an estimated 280 million native speakers, the vast majority of whom live in the Middle East. An additional quarter billion speak the language nonnatively. Arabic has both influenced and borrowed from other languages nearby, such as Semitic tongues and tongues as far away as Urdu (spoken in Indochina). ***Calligraphy*** has historically been associated with Arabic and emerged in the Middle Eastern region.


Qur'an

The hypothetical Altaic language family includes languages that exist throughout Asia. Geographically, the family is currently spoken in Turkey, Uzbekistan, Turkmenistan, Kyrgyzstan, Tajikistan, Kazakhstan, Mongolia, Eastern Siberia, the Koreas, and Japan. It also includes parts of northern China, Iran, Afghanistan, and Pakistan. The family's major languages include the Turkic group (180 million people), Japanese (130 million), and Korean (80 million). If the Altaic group is accepted as valid, it provides a common descent for languages whose origins are largely unknown and lineage is questioned. If not, many of its members would be considered ***isolates***.

In Southeast Asia, Austronesian languages dominate. Javanese, Filipino, and Indonesian all claim more than forty million speakers; many smaller tongues number in the millions, as well. Grammatically and structurally, the family is somewhat primitive. Languages in general have limited numbers of ***phonemes***, simple syntax, and tend to feature duplication of sounds or syllables.

In many places, European languages have left a legacy from colonial days. These languages are most visible in India and the Philippines, both of which used to be owned by Britain. Large minorities in these countries still speak English and pass it on to their children.

## *Life Principle*

Keep well thy tongue, I counsel thee.

**James I** (1566-1625), King of Scotland



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

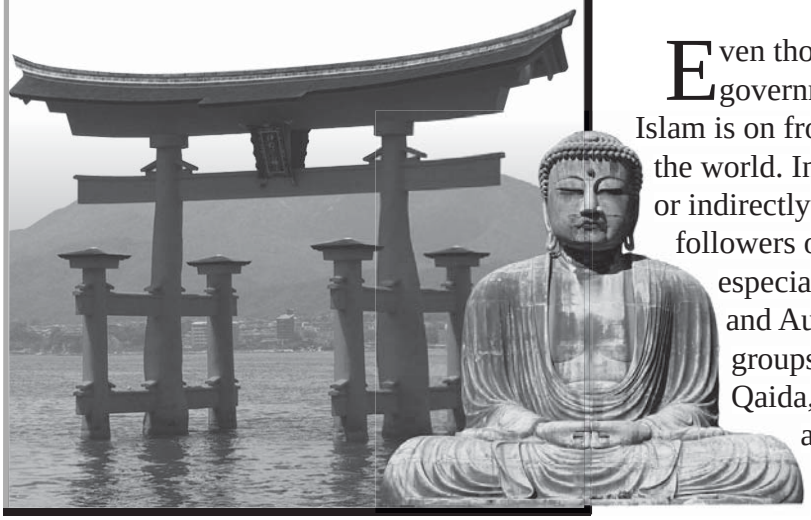
# World Geography

## Chapter 5

**Lesson 9**
*Religions*

**Religions of Asia**

**Section 2**
*Lessons 6-10*



Even though Christianity framed governments in Europe and America, Islam is on front pages of media around the world. International strife is directly or indirectly tied to the conflict between followers of Islam and non-Muslim nations, especially Israel, the U.S.A., England, and Australia. Numerous terrorist groups, such as Hamas, Taliban, Al Qaida, and Hezbollah, are viciously anti-Christian and anti-Jew. Many non-Muslims believe Middle East Muslim governments are hostile toward people who embrace Judeo-Christian beliefs. Even though only a percentage of Muslims are outwardly hostile, the Qur'an compels followers of Islam to force "infidels" (non-Muslims) to submit to Islamic rule or face persecution or even death. Most acts of terrorism across the globe during the past decade were perpetrated by followers of radical Islam, defined by Muhammad, founder of Islam. Strict Muslims believe everyone in the world should be Islamic. Numerous forms of the Islamic religion are practiced. The Sunni is the largest Islamic denomination and has many followers throughout the Middle East and northern Africa, as well as throughout the world. The Shi'a denomination makes up only about 10% of the Muslim culture. "Folk Islam" incorporates rituals not usually involved in traditional Islam; this "folk Islam" includes the concept of an evil eye. To protect themselves from it, Muslims hang red flags above their doors and use eyeliner around their newborn's eyes.

Islam is only one of many religions throughout Asia.

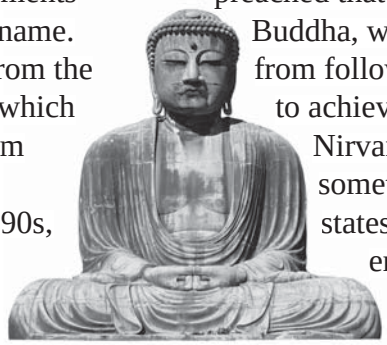
## VOCABULARY

***Secular***: worldly; not spiritual
***Deification***: elevation of a person or figure to godlike status
***Polytheism***: belief in multiple gods
***Moksha***: freedom from the differentiated and mortal world of ordinary experience
***Reincarnation***: cycle of life, death, and rebirth in one of many forms
***Pantheism***: belief that the entire natural world is inhabited by God or is God, as opposed to belief that God is separate and distinct from the world



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

In the 1990s, the American grunge band Nirvana adopted Buddhist elements and ideals, not to mention its name. The name "Nirvana" comes from the Buddhist concept of nirvana, which equates best with freedom from suffering, towards which all Buddhists strive. Since the 1990s, some public athletic figures, like Phil Jackson and Tiger Woods, have embraced Buddhism, in part or in full. This Asian religion is concentrated in East and Southeast Asia.


Siddhartha Guatama (Buddha)

Buddhism is no minor faith; it is the third largest religion in Asia and the fourth largest on the globe. Buddhism claims several hundred million adherents throughout Japan, China, Indochina, and Indonesia. The religion's roots derive from an Indian prince named Siddhartha Gautama, who lived in the 6th century BC. Gautama purportedly left a life of luxury to discover the meaning of suffering in the world and, therefore, the purpose of life. After wandering throughout India, Gautama spent forty-nine days sitting under a tree after which he allegedly attained enlightenment. This supposed enlightenment, ostensibly, enabled him to realize the meaning of human suffering along with the way to end it, which is called the Noble Eightfold Path. In Buddhism, all living creatures are trapped in a cycle of life, death, and rebirth, known as reincarnation. The form of reincarnation an individual takes is, supposedly, dependent on his or her deeds in life, with higher beings (such as humans) usually resulting from living right in a previous life. Ultimately, Gautama preached that every individual can become Buddha, which, purportedly, results from following the path well enough to achieve freedom from suffering. Nirvana and enlightenment are sometimes viewed as identical states; some adherents elevate enlightenment above nirvana. Buddhism is unique in that it does not venerate a god or gods; instead, it rejects the very idea of God completely. Relief from suffering is supposedly attained by human effort without dependence on or assistance by a deity.


"Torii" Shinto Gateway

As in most major global religions, Buddhism has two main branches. Theravada Buddhism can be said to be the more orthodox form of Buddhism, representing closely Gautama's original belief system. It is practiced in southern India, Sri Lanka, and Indochina, as well as various pockets of the Southeast Asia archipelago. Mahayana Buddhism likely arose some several hundred years after Gautama lived and is dominant in China, Mongolia, Korea, and Japan. The two branches are relatively similar in size: Mahayana Buddhism claims more followers, but many of them follow the faith marginally or in a syncretistic fashion, mixing Buddhism with other traditions. The reasons for this are myriad. In China, Buddhism represents the largest organized religion, but China's official state policy of atheism has steered the nation increasingly ***secular*** in recent decades. Shinto is the historic religion of the Japanese people and involves the ***deification*** of the Japanese emperor, but


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

it is not exclusivist. Many Japanese practice elements of both Shinto and Buddhism, and they are not seen as incompatible.


"Akshardham" Hindu Temple

Though Hinduism is somewhat limited geographically, it dwarfs Buddhism in size. With one billion adherents, nearly all of whom live in Asia, Hinduism is the second largest religion on the continent and the third largest in the world. Some scholars hold that Hinduism may be the oldest surviving religion in the world, encompassing a plethora of native traditions and folklore from several thousand years before Christ. Hinduism is the world's largest example of ***polytheism***. Although Hindu sects vary immensely on nearly all aspects of their faith, many Hindu recognize the gods Brahma, Vishnu, and Shiva as primary deities. Hinduism is similar to Buddhism in its teachings on salvation, explaining that ***moksha*** is the highest goal of human existence (above love, pleasure, wealth, and even virtue) and represents liberation from the cycle of ***reincarnation***.

Hinduism embodies a multitude of diverse religious conventions and doctrines unfamiliar to most Westerners. The concept of Brahman is integral to understanding the Hindu faith, the closest Hindu equivalent to a supreme god. Brahman is not a being, but a reality or essence, a supernatural force that guides all life and to which even the gods are subservient. In this respect, Hinduism evokes ***pantheism***, the belief that Brahman is in the universe and all life, or simply is the universe. The idea of Brahman also supports the Hindu claim that Hinduism is in fact monotheistic. The trip of Brahman, Vishnu, and Shiva are collectively called the Trimurti, and because they are subservient to Brahman, they are sometimes perceived as similar to the Trinity of Christianity, in which they are three representations, or representatives, of the same essence. As in Buddhism, many Hindu are fairly tolerant of other, even opposing, beliefs, and some amalgamate elements from various traditions in their own practices. The two primary Hindu scriptures are called the Vedas and the Upanishads. With the growing popularity of Hinduism in Western pop culture, some Hindu traditions, like ***yoga***, have entered the West's consciousness and have found expression in physical and meditation exercises.

Up to 90% of the world's Hindus live in India. Nearby countries also have sizable percentages of Hindus, though only in India and Nepal do they constitute a majority. Nepal and Bangladesh both count over 15 million Hindu; Sri Lanka and Indonesia add over a million each. Unlike other global religions, Hinduism does not have denominations, though many Hindu and cultural researchers break it up into a few distinct schools of thought. In Pakistan and Indonesia, Islam's influence has permeated Hinduism, and some people practice a unique blend of both religions.

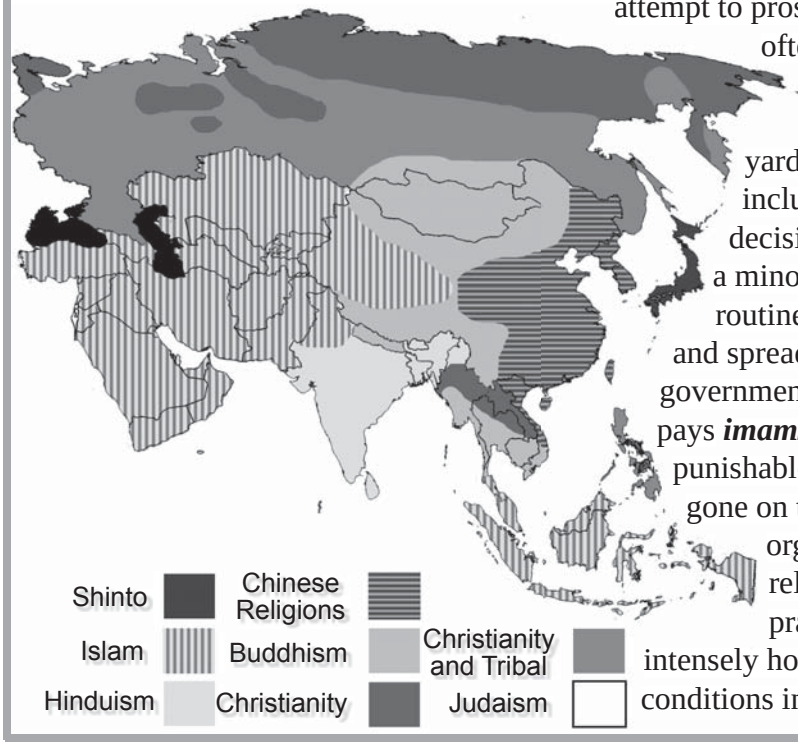
Asia's largest religion is the world's second largest. Islam counts more than 1.5 billion followers across nearly every country on the planet, and most of these live in a belt stretching across Central and South Asia. Intriguingly, in spite of the faith's rise in the Middle East – specifically Saudi Arabia – the largest Muslim population today is in Indonesia, at least 200 million strong. The Middle


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

East still retains the highest percentage of Muslims, however, furthered by Islam's deep embedment in the region and state conformity to Islamic laws. Some nations in the Middle East are basically Islamic governments: 99.7% of Afghanistan practices Islam, for instance; 99.4% of Iran; 98.2% of Jordan. Islam's hold continues across the Indian subcontinent, broken only in India by Hinduism. Bangladesh's 145 million Muslims comprise 90% of the country's population, and nearly all of Pakistan's 175 million people are Muslim. High birthrates in many of these countries coupled with a surge in popularity in Europe and the Americas make Islam, perhaps, the fastest-growing religion on Earth.

Asian Islam does not differ from African Islam in substantial ways. The larger of its branches, Sunni Islam, is recognized and taught in most places. The smaller branch, Shi'a Islam, nonetheless has a majority in several important countries. Up to 95% of Iran's 70 million Muslims are Shi'a, along with the majority of Iraqis and Bahrainis. Significant chunks of Lebanon, Yemen, and Kuwait are also Shi'as; to a lesser extent, small Shi'a populations exist in Syria, Pakistan, and India.

Much debate has arisen over the danger of radical branches of Islam throughout the past decade, in particular since the 2001 terrorist attacks on the United States. Despite some peaceful Muslims around the world, Islamic countries have many characteristics that have come under global scrutiny. In contrast to broadminded, religiously diverse and tolerant East Asian countries, freedom of religion in Islamic countries is severely impinged. Saudi Arabia, the global center of all things Muslim, is an Islamic theocracy with no freedom of religion whatsoever outside Islam. The government requires all citizens to practice Islam, and non-Muslims, who attempt to proselytize, or even meet, are often subject to state-sponsored persecution. Sharia (Islamic law) is the final yardstick for all legal matters including legislating and court decisions. Even Shi'a Muslims, a minority in Saudi Arabia, are routinely persecuted for following and spreading their faith. The Saudi government funds all mosques and pays ***imams***. ***Apostasy*** is illegal and punishable by death. Saudi Arabia has gone on the record with international organizations as supporting religious freedom, but, in practice, the government is intensely hostile to non-Muslims. Sadly, conditions in other countries are often no





© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

better. Iran is notorious for harassment and persecution of non-Muslims. Even in liberal Islamic countries, laws like those in Syria, mandate that the president be a Muslim.

More troubling that this is Islam's connection with terrorist groups throughout the Middle East; in spite of some media reservations over the mere association of Islam with terrorism, the fact is that virtually all of the violent incidents involving terrorism over the past several decades have been committed by Islamic radicals. Since September 11, 2001, the concept of jihad has been splattered across news headlines in the West. Jihad is the Qur'an-commanded duty to fight for Allah against the Jews, Christians, and other religious groups. While some Muslims interpret the idea in a nonviolent sense, radical groups have paired jihad with harsher language in the Qur'an and committed horrible atrocities, from small suicide bombings to plane hijackings. These groups view non-Islamic cultures – particularly the United States – as evil, and regularly wage war on America. The best known of these groups is Al-Qaeda, which claimed responsibility for the September 11, 2001, attacks. Islamic radicals have engaged in kidnapping, suicide bombings, car bombings, plane hijackings, and a litany of other crimes against Americans and other Westerners. Combating these terroristic elements – and the people who balk at the term "Islamic terrorism," or seek to excuse the violence – has become one of the globe's toughest challenges in the 21st century.



World Trade Center Attack
September 11, 2001

Other religions exist throughout Asia, many of which are quite significant, but space demands we must move on. Sikhism is the world's fifth largest religion, based on the teachings of a 15th century guru. It is mainly practiced in Punjab. Confucianism, prevalent throughout East Asia, is more of a philosophical and moral system than a religion, but some of its teachings border on the religious. Judaism numbers about 15 million adherents worldwide, almost half of whom live in Israel. Several million Baha'i are an example of ***monotheism***. They live throughout East Asia, including India and Vietnam. Jainism is found in India, and Chendoism is prevalent throughout the Koreas.

## VOCABULARY

***Yoga***: Hindu spiritual disciplinary meditation and training
***Imam***: the officiating priest of a mosque
***Apostasy***: the rejection or abandonment of religious beliefs
***Monotheism***: belief in one God

## Life Principle

All I have seen teaches me to trust the Creator for all I have not seen.

**Ralph Waldo Emerson**
(1803-1882), 19th century US writer and philosopher



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

## Chapter 5



**Lesson 10**
*Transportation*

**Section 2**
*Lessons 6-10*






Gabriel steps off the enormous Boeing 777 onto the loading tunnel and follows it up into the terminal at Shanghai's Pudong International Airport. Haggard and jetlagged, he has flown in from Rio de Janeiro, on company business for which he has to meet with some potential clients. He follows the passengers just ahead of him down to baggage claim, where he waits a few minutes for his smartly packed suitcase. After retrieving the bag, Gabriel stops and rents a car, a Honda Civic, hops in and navigates through the busy airport road labyrinth. Within fifteen minutes he is out of the airport and on the brand new highway, headed to the outlying areas where his clients await him. Traffic in Shanghai is much like traffic in Brazil—noisy, fast, and often congested. Before long, he's at his destination, looking no worse for the wear. He checks his watch. 4:15. It's been only an hour since he stepped off the plane, and fourteen hours since he was on the other side of the world. Tonight, Gabriel will travel the expressway down a few more kilometers to his hotel, then take a ferry tour of Shanghai's busy harbor on the East China Sea.



Two thousand miles away in Dhaka, Bangladesh, Nalak pedals his brightly colored ***rickshaw*** through the streets of the nation's capital. Nalak is lucky—the distance between his apartment and the textile company in which he works is just eight miles, far closer than some friends, who travel fifteen and twenty miles a day. Although many districts in Dhaka have banned rickshaws because

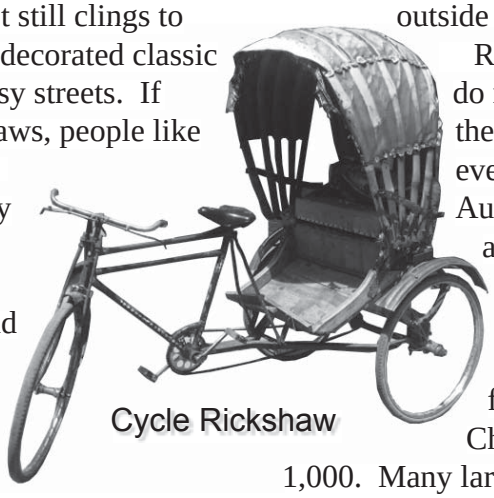
## VOCABULARY

***Rickshaw***: small cart either pulled by one person or pedaled like a bicycle
***Monorail***: rail systems in which trains run a single rail
***Urban sprawl***: city growth
***Bullock cart***: cart pulled by an ox or oxen

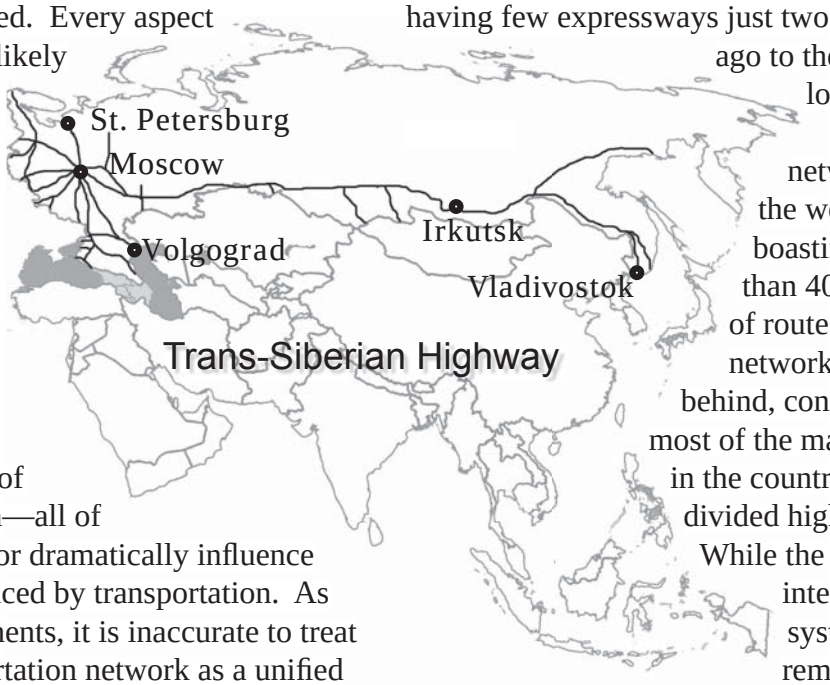


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

automobiles have become increasingly common, Nalak's district still clings to tradition, and brilliantly decorated classic buggies crisscross its busy streets. If officials ever ban rickshaws, people like Nalak will be in trouble. Nalak's wife has recently been worried about the same thing. He cannot afford an automobile, and taxis are undependable and in short supply. Besides, the ornate rickshaws are far more attractive than the solid-colored, noisy automobiles that clog the city streets.


Cycle Rickshaw

Asia's transportation realities are as varied and diverse as Gabriel's and Nalak's experiences. Perhaps, along with all the other variety on the continent, the situation is to be expected. Every aspect of life in Asia likely involves transportation modes and availability. Economics, population patterns, frequency of business travel, tourist draws, degree of Westernization—all of these subtlely or dramatically influence and are influenced by transportation. As on other continents, it is inaccurate to treat Asia's transportation network as a unified whole, as systems differ wildly in quality, extent, and streamlining with other modes. Some places have developed intriguing solutions to mount the hurdles travelers face while connecting residents with the outside world.

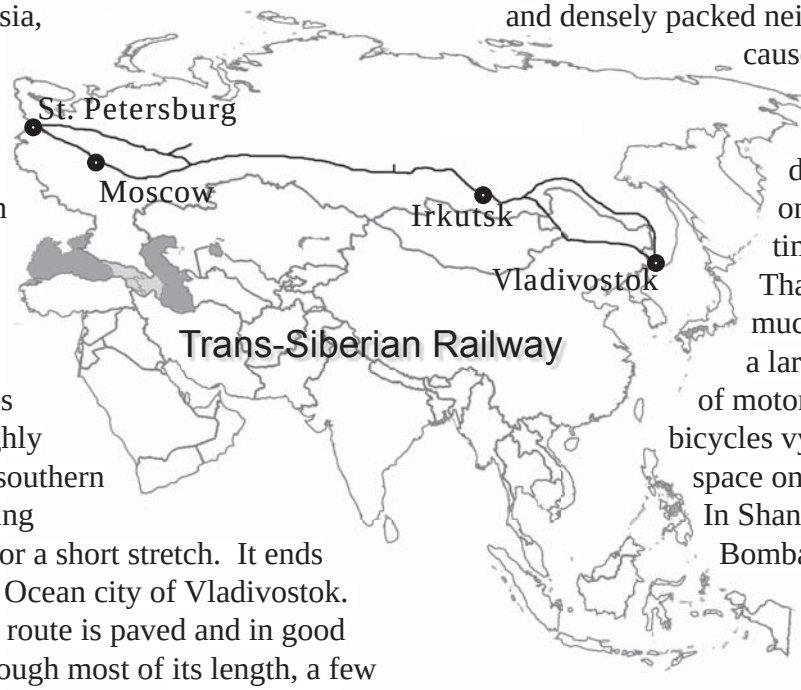



Roads and highways in Asia do not enjoy the primacy they do in North America, or even some places in Europe. Automobiles are not nearly as widespread in Asia as in the United States. As of January 2010, there were 850 cars in the U.S. for every 1,000 people; in China, the ratio was 35 to 1,000. Many larger countries like Saudi Arabia and Kazakhstan have paltry highway systems compared to the Western world, favoring rail or sea transport. Nonetheless, some countries have developed impressive and functional road networks, and they are seeing increasing volumes of business and personal traffic. China has gone from having few expressways just two decades ago to the second longest network in the world today, boasting more than 40,000 miles of routes. India's network falls close behind, connecting most of the major cities in the country with divided highways. While the U.S.'s interstate system remains the gold standard by which all other highway networks are judged, roads in Asian countries are usually well maintained and free of ruts or potholes.


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

Areas that receive more extreme weather sometimes have maintenance problems not found elsewhere, such as in India's monsoon region where heavy rains batter the asphalt roads several months a year.

Both the existence and quality of roads in Asia are largely determined by the presence of populated places. Russia saw the need for a land route through the vast wilderness of Siberia and constructed the Trans-Siberian Highway, which at nearly 7,000 miles long may be the longest road in the world. It runs primarily through southern Russia, originating in St. Petersburg and running south through Moscow. Near the Kazakhstan border, the highway turns east and roughly parallels the southern border, entering Kazakhstan for a short stretch. It ends at the Pacific Ocean city of Vladivostok. Although the route is paved and in good condition through most of its length, a few sections run through muddy, marshy land and are somewhat dangerous. Smaller highways linking towns in Northern Siberia intersect the Trans-Siberian Highway. The lonely road, however, is narrow by highway standards, as few populated places limit vehicle traffic.




Near Saudi Arabia's capital, Riyadh, however, a complex system of highways exists, often spanning multiple lanes and conducting large volumes of traffic. On the Red Sea coast, Saudi Arabian highways are paved and are integral to economic development. Roads in this country are specially constructed to withstand the brutal summer heat and exceedingly dry conditions.

In large cities, traffic woes rival the most legendary problems in Europe and the Americas. The world's largest urban agglomeration, Tokyo, is perhaps surprisingly drivable, with ***monorails*** and an expansive mass transit network. Yet, the sheer number of people in the region, coupled with higher car ownership and densely packed neighborhoods, causes daily traffic jams and dollars wasted on fuel and lost time. Bangkok, Thailand is not much better, with a large number of motorcycles and bicycles vying for space on the street. In Shanghai, China; Bombay, India; Kathmandu, Nepal; Seoul, South Korea; Asia's growing industrialization and the affordability of vehicles is a double-edged sword. It has put rapid and easy transportation within reach of many who a decade ago could not afford it, but city dwellers often find that rapid transportation is not a guarantee when already-overcrowded highways are swelling with new vehicles. Urban planners in Asia continue to work for new transportation solutions in an era of unprecedented ***urban sprawl*** and growing


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

affluence.

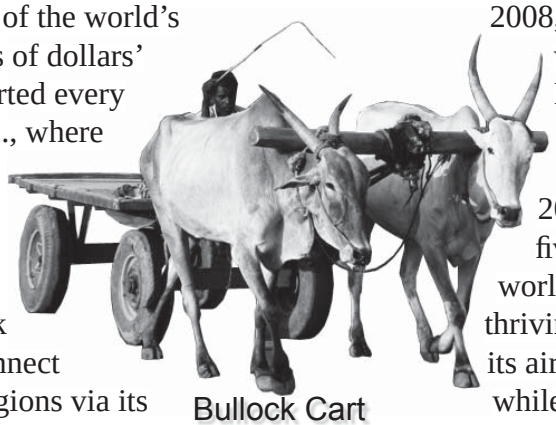
Rail transportation is of considerable importance in Asia. The Trans-Siberian Railway is the counterpart to the Trans-Siberian Highway, and follows approximately the same route. Begun in the late 19th century, construction spanned a century, the most recent phase being completed in 1991. The railroad was a major boon to agriculture during its early years, as farmers living in remote regions of Russia could finally transport their crops and livestock to markets in the east and west. Today, the route maintains its importance as a shipping method, and passenger traffic is also important, serving people traveling between Europe and East Asia. China's rail system is among the most important in the world. Its 53,000 miles of track carries nearly a quarter of the world's rail traffic, with billions of dollars' worth of goods transported every year. Unlike in the U.S., where rail transport is used primarily for shipping rather than passenger travel, China's comprehensive network means travelers can connect with other cities and regions via its railroads. In the east, high-speed trains have become prevalent. Trains in Shanghai and Beijing compete with those in Europe for the title of the world's fastest. The high costs incurred in high-speed rail development are transferred to riders, however, so these trains are typically more expensive than lower-speed models.



High-Speed Train in Shanghai

Other countries are similar. India's rail system carries six billion passengers every year. In Kazakhstan, the national railway corporation has connected the country's largest cities by rail, and it remains a popular option for intercity travel and shipping. Japan's rail system is, by many accounts, the best in the world, transporting millions of people through urban areas on high capacity, generally high-speed, passenger trains and monorails. Tokyo; Osaka, Japan; and most other large cities in Asia have subway systems that are quite popular.

As on other continents, Asia's busiest airports are located in the largest commercial, financial, and political hubs. Tokyo International Airport saw 67 million passengers pass through its gates in 2008, good for fourth in the world. Beijing's Capital International saw a huge jump in passenger traffic in 2009 over 2008, entering the top five busiest airports worldwide. Hong Kong's thriving economy has made its airport a top contender, while Dubai International, Suvarnabhumi Airport in Bangkok, and Changi International in Singapore are all in the top thirty. In contrast to other places, air travel in Asia is undergoing a dramatic expansion, as economies in China, India, and the Middle East are expanding, even



Bullock Cart



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

while the global economy fluctuates.

Yet in many corners, Asians use less high-tech means of getting around. In South and Southeast Asia, rural farmers still ride ***bullock carts***, collecting their produce and transporting it to market with cattle-powered vehicles. The carts are an ancient form of transportation, essentially just a cart pulled by an ox or pair of oxen. Some carts have a seat for a rider, while others require the farmer to walk alongside. Predominantly used in rural areas, bullock carts can nonetheless be seen in congested cities and towns throughout India, Bangladesh, and Sri Lanka. Among the islands of Southeast Asia, many residents use makeshift ferries for transport across the water. Although small ferries generally do not permit transporting goods, they are an effective means of moving people who live or work near the shore.

Other means of transportation are important regionally. Asia has most of the busiest seaports in the world, including the Port of Singapore, the Port of Shanghai, and the Port of Hong Kong. Large ferries carry passengers among Indonesian and Malaysian islands, and can transport automobiles along with their drivers. In many cities in East Asia, bicycles are encouraged as an alternative to costly automobiles. Many Asian cities have far higher rates of bike usage than in the U.S. Taxis and buses are common and easy to find in large cities as well.



Malaysian Ferry

# Life Principle

Because the road is rough and long,
Shall we despise the Skylark's song?

**Charlotte Bronte** (1816-1855),
19th century English novelist and poet



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

## Chapter 5



**Lesson 11**
*Forms of Government*

**Section 3**
*Lessons 11-15*






Following the terrorist attacks in the United States on September 11, 2001, the U.S. launched two massive military invasions in the Middle East. Its objective was to liberate two countries, Afghanistan and Iraq, of links to terrorist groups grounded in radical Islam and violently hostile toward the U.S. The first invasion, carried out across Afghanistan beginning in 2001, rid the Afghan government of the Taliban, the ruling organization that espoused military action against the West and oppressive versions of Islamic law. The second, launched in 2003, deposed Iraqi leader Saddam Hussein, a war criminal who gassed his own people and had sought to develop chemical, biological, and nuclear weapons. Hussein's Iraq had instigated the Persian Gulf War in 1990 with its invasion of Kuwait, and when an international coalition ousted him from the country the following year, he was left in power in Baghdad, Iraq. In the years since, Hussein had expanded his support for terrorist organizations and had viciously attacked the United States in the press. When U.S.-led allied forces captured Baghdad in 2003, Hussein escaped and hid in Iraq for most of the year. He was finally captured in December, and in 2006 a multinational court found him guilty of war crimes and executed him. Radical insurgents in Iraq reorganized and utilized guerrilla warfare techniques, including suicide bombings by women and children. However, establishment of a stable Iraqi government has been an important step to peace for the long-oppressed Iraqi citizens.

Iraq's government is the newest in Asia, and is at the front of a long line of newly created countries or

### VOCABULARY

***Legislative***: lawmaking, specifically by elected legislators
***Theocracy***: government in which a religious system is law
***Caste system***: in India, system in which fixed and unchangeable social classes are determined by heredity
***Federal***: system in which central and local government share power
***Sultan***: absolute ruler in some Muslim countries



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

constitutions. Asia's governmental systems run the gamut from open, Western-style democracies like Hong Kong and Israel to closed, oppressive dictatorships like North Korea and China. Some nations, or at least the territories they occupy, date back to before the time of Christ; others have emerged only recently in the shadow of the Cold War and other conflicts. Although the succession of military coups in Latin America and the massive unrest in Africa top even the most exciting moments in Asian politics, governments on the world's largest continent are often at the center of the world's stage, for better or for worse.


Saudi Arabian King Abdullah

In the Middle East, countries have forms of government ranging from parliamentary systems to monarchies. Turkey, Lebanon, Israel, and Iraq are all parliamentary democracies, employing a parliament as the ***legislative*** body and a prime minister as the chief executive. Syria and Turkmenistan are single-party republics and forms of dictatorships. Saudi Arabia and Oman are absolute monarchies, devoid of any parliamentary or congressional lawmaking body—the monarch holds sole and ultimate political power. In Jordan, Kuwait, Bahrain, Qatar, the United Arab Emirates, and Yemen, monarchs rule, accompanied by relatively weak parliaments. In theory, at least, Cyprus, Iran, and Afghanistan are presidential republics, while Pakistan is a semi-presidential republic. Although the labels are useful for classifying countries, realities often belie the benign categories these nations fall under.

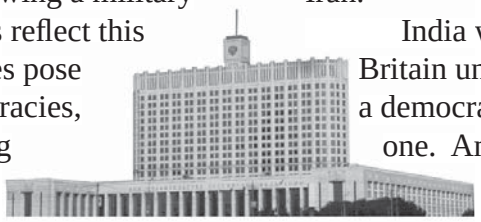
Many countries in the Middle East base their governments around Islam. Islamic law is referred to as Sharia, and influences many of the traditional Islamic countries. Some countries follow Sharia less stringently—Oman is a prime example—requiring laws and court rulings to comply implicitly with Sharia, but only using it as a foundation. Others are more dogmatic. Iran terms itself the Islamic Republic of Iran and employs a complex system that draws heavily from its dominant religion. In Saudi Arabia, the Qur'an is the Constitution, and virtually every aspect of society, from business to dress to women's rights to tax laws, are determined by the Islamic faith. Iran and Saudi Arabia both exemplify aspects of ***theocracies***.

In many Islamic countries, daily life is oppressive and harsh, and corruption in the political workings is widespread. Saudi Arabia's King Abdullah, one of the richest people in the world, oversees a country where freedom of religion is squelched, women are devalued, and political opponents are jailed. In Iran, the situation is far more frightening. President Mahmoud Ahmadinejad—coupled with Supreme Leader Ali Khamenei, who holds a ceremonial office above that of the president—has committed human rights violations and other atrocities. In June 2009, a Canadian *Newsweek* reporter in Iran was arrested for crimes including opposing the Ahmadinejad regime. He was held, interrogated, and intimidated for four months before being released in October under growing international pressure, but, unfortunately, his story is all too familiar. In February 2010, brave patriots faced harsh government reaction to crowds that called for freedom from tyrannical


Iranian President Mahmoud Ahmadinejad


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

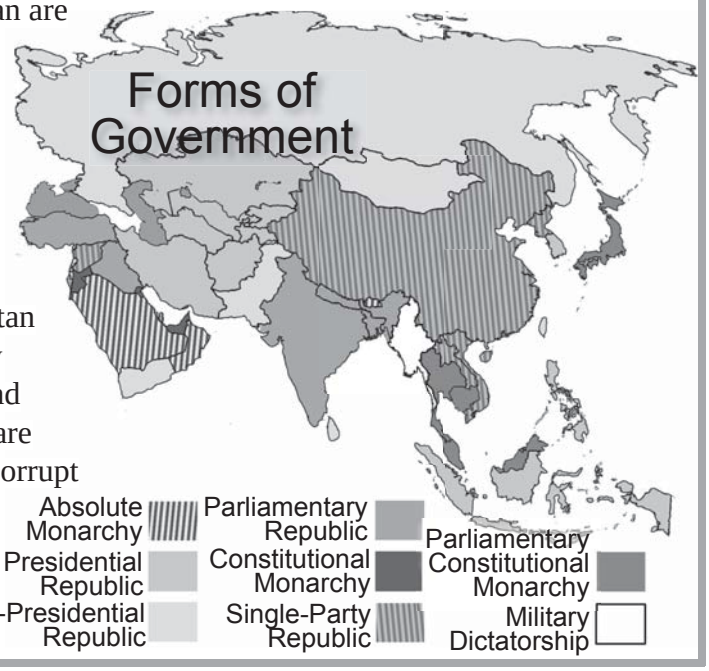
Islamic policies. In early 2010, some world governments feared Iran was attempting to develop nuclear weapons, a frightening prospect given Iran's threats to the West. Many of these governments, including the United States, threatened sanctions against Iran unless it halted its nuclear program; an unfazed Iran completed its first nuclear power plant in late 2010. Syrian President Bashar al-Assad is the son of former President Hafez al-Assad, who ruled for nearly thirty years following a military takeover. Other nations reflect this trend, in which countries pose as free and open democracies, often even incorporating some aspects of a democracy, but where political and social climates are closed and oppressive.


Russian Government Building

In Central Asia and South Asia, a few countries employ parliamentary systems, as well, and several others are full presidential republics. Russia and Mongolia are examples of parliamentary governments; the former Soviet nations of Kazakhstan, Tajikistan, Kyrgyzstan, and Uzbekistan are examples of the latter. Most nations in the region typically considered South Asia have parliamentary republics. This includes India, Nepal, and Bangladesh; the semi-presidential republic of Sri Lanka and strong constitutional monarchy in Bhutan are exceptions. Turkmenistan is similar to Syria in that it is ruled by a single party. Degrees of freedom and democracy vary by country, as some are relatively open and others relatively corrupt and oppressive.

Severely weakened by the Cold War, Russia emerged from the former Soviet Union and has struggled to regain an identity and economy. Under the administrations of former President Vladimir Putin and current President Dmitry Medvedev, Russia has reasserted itself internationally, although the government retains broad control over many aspects of life. Russia is somewhat stable politically, but the international community nonetheless remains wary about democracy's continuation—Russia supports some oppressive nations like Cuba and Iran.

India was controlled by Great Britain until 1947 and has established a democracy, albeit an imperfect one. Among the biggest problems in India is its ***caste system***, a Hindu establishment in which citizens are born into one of several social classes that do not change throughout their lives. Officially illegal, the caste system is nonetheless pervasive throughout India and is the basis for discrimination and poor treatment of huge numbers of Indians. In Turkmenistan, the government has adopted a Big





© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

Brother-esque approach to influencing its citizens' lives, plastering the president's name and picture nationwide. Religious persecution and government corruption are common. In many countries, former Soviet policies such as communism and closed-door governments still haunt the political climate.

Several different governmental systems exist in East Asia. China and North Korea are single-party communist governments whose dictatorial leaders enforce extremely repressive policies. South Korea is a full presidential republic; Japan is a constitutional monarchy. Taiwan, which considers itself the true government of China, is a semi-presidential republic. China recognizes Hong Kong as a dependency with a large degree of autonomy and headed by a chief executive.

Chinese President Hu Jintao heads up the Communist Party of China and directs the country's affairs as its chief executive. His rule, and that of presidents before him, has been tumultuous, as China's size and population make its authoritarian style of government a concern. While the physical distance across which its populace is scattered make a ***federal*** system a necessity, Beijing controls much of the economics and daily lives of the 1.3 billion Chinese citizens. China's best known territorial dispute is with Taiwan (also known as the Republic of China), which China claims. Taiwan has rejected this claim and asserts that it is the true nation of China, and is much more free and democratic than mainland China. Japan has a prime minister serving as head of government and an emperor who serves as head of state. Although the emperor is a figurehead, the tradition of having an emperor dates to the 7th century BC, and there is little support for abolishing the position. In North Korea, the government is totalitarian and generally considered the world's most oppressive government. Tension with South Korea, which is much more democratic, has been the norm since the 1950s.


Chinese President Hu Jintao

Southeast Asia still struggles to adopt democracy and unrestrictive regimes. Myanmar (or Burma) is controlled by a military dictatorship. Cambodia and Thailand are constitutional monarchies, though Cambodian King Sihamoni is more active in political affairs than most monarchs. Brunei is an absolute monarchy ruled by a ***sultan***, whose current leader is among the richest people in the world. Sultan Hassanal Bolkiah rules with ultimate political power despite the existence of a legislative council and judiciary, and has poured his vast wealth into an extravagant array of luxury items, such as houses, exotic cars, and jets. The sultan owns a collection of several thousand supercars and classics; a Boeing 747; a billion-dollar theme park; and a 2.1 million-square foot palace, complete with five swimming pools, a 110-car garage, and a 1,500-capacity mosque. The 1,788-room home is the largest residence in the world. Excesses like this are indicative of the corruption in Southeast Asia.

## Life Principle

***Nothing is politically right which is morally wrong.***

**Daniel O'Connell** (1775-1847), 19th century Irish political leader



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

## Chapter 5

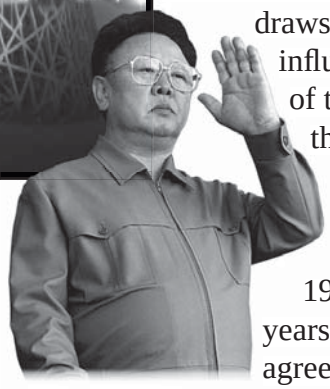


**Lesson 12**
*Diplomatic Relations*

**Section 3**
*Lesson 11-15*





About halfway down the Korean Peninsula, straddling the border between North and South Korea, lies a narrow strip of land known as the Korean Demilitarized Zone. 155 miles long and 2.5 miles wide, it is the largest and most famous ***demilitarized zone*** in the world, established in the aftermath of the Korean War in 1953. The history of the zone, which serves as a buffer between the independent nations, draws from World War II, in which Soviet influence extended through the upper half of the peninsula and Allies controlled the southern half. Despite the Allied forces' WWII victory, tensions within the peninsula continued, leading to the outbreak of the Korean War in 1950. That conflict continued for three years until the forces signed an ***armistice*** agreement, which halted aggression but never resolved the problem. In the absence of a formal peace treaty—which to this date has never been signed—the demilitarized zone was created and overseen by the United Nations. Still in full operation today, military activity outside of patrolling is prohibited in the corridor, and access is highly restricted. Both North and South Korean militaries monitor the zone ardently, watching for infiltrations by the other country. The high security and volatile relations surrounding the land strip have left it shrouded in mystery. South Korea, allegedly, erected a wall along part of its length in the 1970s, and some contend it still exists, providing a barrier to the north. South Korea denies this, however, and since the area is off-limits to civilians and foreign government personnel, the wall's existence is

### VOCABULARY

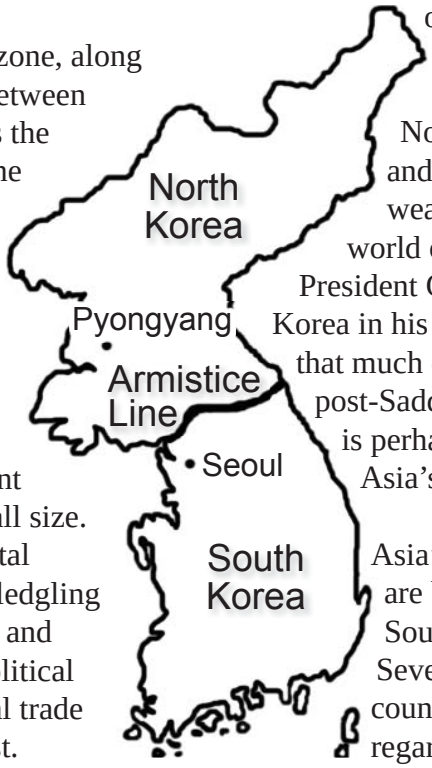
***Demilitarized zone***: zone from which military operations or installations are prohibited
***Armistice***: ceasefire; truce
***Hegemony***: dominance of one nation or social group over others
***Human trafficking***: the recruitment, purchase, kidnapping, or other illegal obtainment of persons for an exploitative purpose, such as sexual slavery, forced labor, or child soldiery



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

uncertain.

The demilitarized zone, along with the official border between the two nations known as the Military Demarcation Line (or Armistice Line), is a symbolic representation of the vast differences separating North and South Korea. South Korea, capitalistic and democratic, is one of East Asia's most important nations in spite of its small size. Headquartered in its capital Seoul, South Korea is a fledgling manufacturing, financial, and commercial center; its political relations and international trade are among Asia's sunniest. North Korea, headed by Premier Kim Jong-il, is a totalitarian state, almost universally regarded as both the least democratic and least capitalistic country in the world. Hailed in his country as practically deity, Jong-il has ruled since 1994 and severed most ties with the outside world, which has repeatedly condemned his regime. North Korea's economy is wholly state-owned, and citizens are barred from owning or operating any business outside of the government's control. Yet the government has proved woefully inadequate to the task: North Korea's economy is far less developed than its southern neighbor's, its citizens are far poorer, and in many places mass starvation is avoided only by the black market importation of food. Its human rights record is appalling, and only the threat of unified action against it has prevented it from being worse. Furthermore, North Korea's hostile rhetoric and attempts to develop nuclear weapons have placed the outside world on high alert: former U.S. President George W. Bush included North Korea in his "Axis of Evil," a designation that much of the world supports. In a post-Saddam Hussein era, North Korea is perhaps the most troubling front on Asia's diplomatic relations.

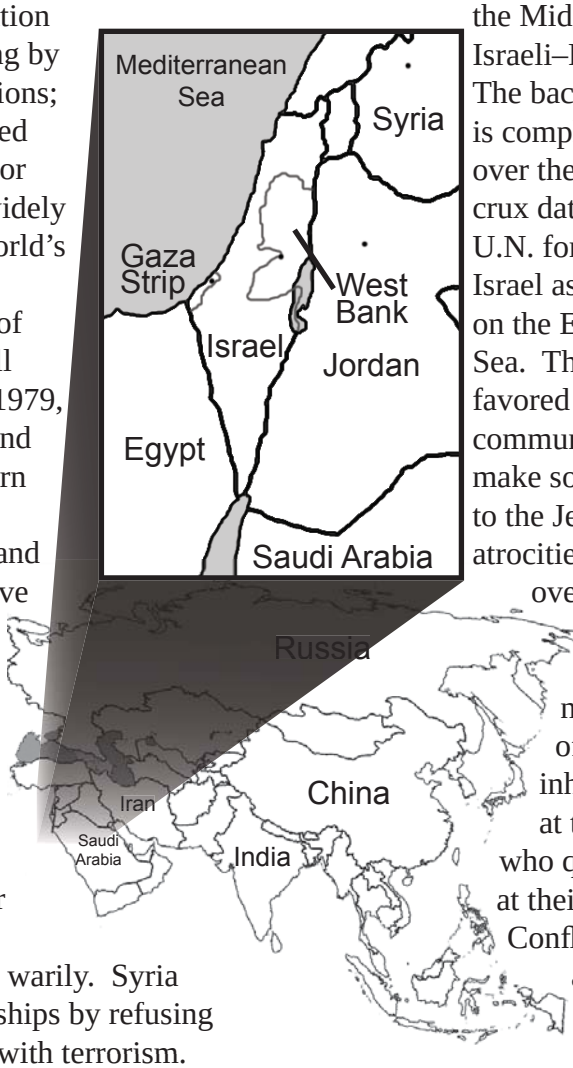



Fortunately, many of Asia's international relationships are better than the North Korea–South Korea quarrel might suggest. Several of Asia's forty-seven countries have positive records with regard to foreign relations. Since World War II, Japan has been on good standing around the world, steadily gaining prominence without making enemies. Kuwait, among the Middle East's more moderate states, was the target of the Iraqi aggression in the Gulf War but currently has few adversaries, as its rhetoric and policies are far less hostile to Westerners than those of other nearby nations. Yet in other countries, diplomacy is shaky, both within Asia and outside its borders. China is rapidly emerging as a major political and economic power, but issues such as the controversial one-child policy and repeated human rights violations have cost China the trust of the international community. Other countries share similar problems, and not just those in a particular region—from Tajikistan to Vietnam, Syria to the Koreas, Asian diplomacy is a rollercoaster ride.


Kim Jong-il


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

Foreign relations in the Middle East have been among the world's most volatile over the past several decades. Iraq's invasion of Kuwait in 1990 brought it international condemnation and a subsequent ousting by a broad coalition of nations; even up until the U.S.-led invasion in 2003, dictator Saddam Hussein was widely viewed as one of the world's worst tyrants. Iran has wavered on the degree of Western influence it will allow since its birth in 1979, alternately embracing and fiercely rejecting Western culture and ideals. Its relations with the U.S. and the developed world have fluctuated accordingly. Current President Ahmadinejad spearheads an oppressive regime that opposes perceived U.S. ***hegemony*** and has developed a nuclear weapons program that much of the world eyes warily. Syria has strained its relationships by refusing democracy and flirting with terrorism. Although a common ethnicity, cultural heritage, and religion unite many Arab countries, serious disputes exist among them. Iran and Saudi Arabia, the two largest nations in the region, have long quarreled over land claims. Syria's borders with Turkey, Jordan, and Iraq have caused turmoil at different points. In the Arabian Peninsula, Saudi Arabia has had border disputes with Yemen and Oman; even today, much of Saudi Arabia's southern border is uncertain. Few people live in the region, but it is potentially flush with oil and natural gas resources.



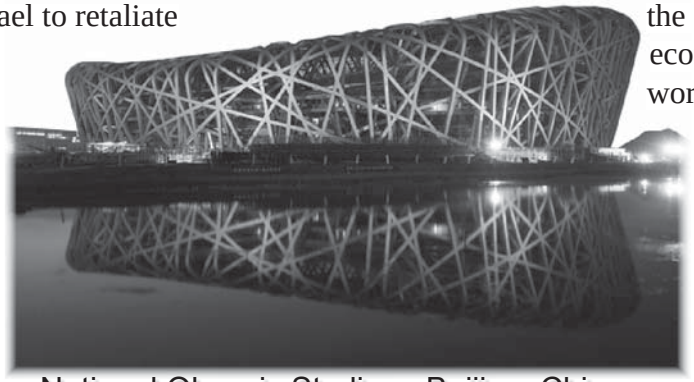

One of the most explosive issues in the Middle East has been the Israeli–Palestinian conflict. The background to the conflict is complex and has evolved over the decades, but the crux dates to 1948, when the U.N. formally established Israel as a Jewish homeland on the Eastern Mediterranean Sea. The move was widely favored by the international community, who desired to make some small reparation to the Jewish people for the atrocities they had suffered over the centuries, most recently in the Holocaust. The newly created state of Israel was sparsely inhabited by Palestinians at the time, however, who quickly became angry at their displacement. Conflict between Israel and neighboring Arab countries, particularly Egypt, escalated when Arabs attacked Israel in Jerusalem. Israel defeated Arab armies in 1948 and again in 1967. The Camp David Accords in 1978 and subsequent ceasefire agreements formally halted aggression between Egypt and Israel, but tensions between Israelis and Palestinians remain high. Most Palestinians in the area live in the West Bank and Gaza Strip partitions, which were ceded to Palestine by international agreement. Yet the Palestinians have


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

links to terrorist organizations—such as Hamas, which currently controls the two partitions—and regularly engage in suicide bombings, kidnappings, and car bombings against Israel. Israel has tenuous support of Western nations, including the U.S., along with a strong nuclear arsenal. But because Palestinian aggression takes place via guerilla warfare and vigilante terrorism, it is difficult for Israel to retaliate conventionally.

Farther east, many Central Asian countries are still attempting to assert their own identities in the wake of the Soviet Union's breakup. Kazakhstan, Turkmenistan, and Uzbekistan all have large fossil fuel reserves along with minerals and precious metals, resources that have invigorated their economies and prominence in the region. Democracy and integrity have yet to permeate the political workings, and international relations have suffered. Outside of communistic and dictatorial countries like North Korea, Cuba, and Zimbabwe, these former Soviet republics are among the globe's most corrupt. Drug cultivation from cocaine to marijuana to opium is a major black market industry. ***Human trafficking*** is a growing and frightening trend. Many world powers from Great Britain to Australia have urged Asian nations to crack down on corruption and runaway drug production, broaching diplomacy tentatively until these areas lessen. Within the region, many relationships are strong. Turkmenistan and Iran have a close relationship; Kazakhstan and the European Union have also expanded cooperation. One source of discord is rights over the Caspian Sea. Five countries border the massive saltwater lake, often clashing over fishing and water usage rights.

When the 2008 Olympic Games came to Bejing, China, it marked a turning point for the world's most populous nation. China is in many ways an enigma: it is the second largest economy in the world and a rapidly emerging superpower, yet it holds policies most of the world has uniformly rejected, such as communism, atheism, and repeated human rights abuses. Olympic organizers previously expressed concern over China's lack of democracy and free enterprise economics, as well as documented human rights violations. Yet China expressed a commitment to freedom and just treatment for its citizens, and the 2008 Olympics shined a spotlight on the country. China's growth has been characterized by massive cheap exports around the world, including the United States. Some militarily powerful nations, such as Russia and Israel, have sold weapons and weapons systems to China. Venezuela and China jointly launched a space satellite in 2008. China has developed a deep relationship with Russia, as well, seeking to counter the U.S.'s influence in Asia. China and Taiwan do not recognize each other, each one claiming the other to be its rightful possession. Similarly, China and Hong Kong had an unusual agreement for much of the 20th century in which Hong



National Olympic Stadium, Beijing, China


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

Kong was a British dependency until 1997, when China regained control. Under the terms of the agreement, Hong Kong still enjoys a high level of political and economic autonomy; perhaps ironically, Hong Kong's capitalistic economy and standard of living is far higher than in mainland communist China.




Elsewhere in Asia, diplomacy is mixed. Japan has good relations around the world, as do some Southeast Asian countries. India enjoys warm relationships with Russia and a few neighbors, like Nepal and Bhutan. Russia has pursued a strongly nationalistic foreign policy aimed at strengthening Russian interests, even at the cost of some democracy and freedoms. Many political scientists admit that the policy has worked somewhat well, although the U.S. and many other countries have called on Russia to commit fully to democracy. India and Pakistan have long feuded over the Kashmir region, which India claims as its own but Pakistan believes may be legally independent. Even in places where diplomatic relations are chilly, calamities often initiate huge amounts of international aid to a region. The 2004 tsunami in the Indian Ocean prompted an outpouring of $7 billion in relief donations to the countries most affected, including Sri Lanka, India, Bangladesh, and Thailand.

# LIFE PRINCIPLE

*You may choose your sin, but you cannot choose your consequences.*

**Ancient Hebrew Proverb**



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

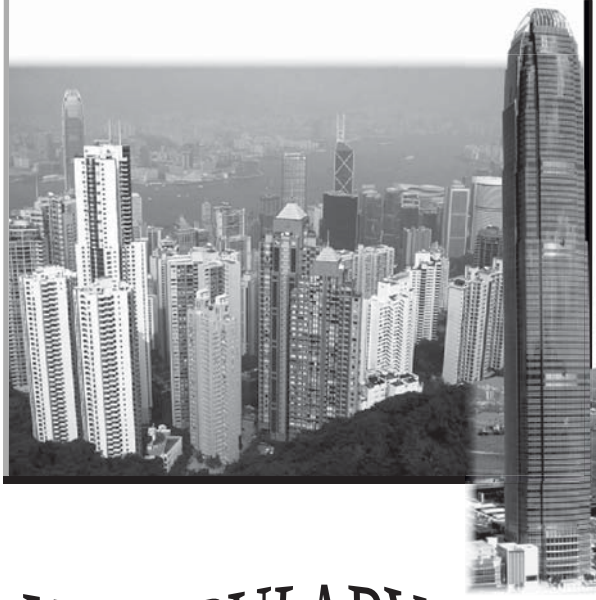
## Chapter 5



**Lesson 13**
*Economic Systems*

**Section 3**
*Lessons 11-15*

**Economic Systems of Asia**



Two International Finance Center

Hong Kong, China hosts hundreds of glass-fronted skyscrapers over a concrete sea and a well-to-do populace on the streets below. From the top floor of Two International Finance Center, nearly 1,350 feet over Victoria Harbor, bankers and attorneys crisscross the asphalt like ants, weaving among financiers driving brand new, well-equipped Lexus sedans. The GDP per capita here in 2008 was $32,000—and in ***purchasing power parity***, $44,000, good for about sixth-place in the world. Keep in mind that Hong Kong is about a quarter the size of Rhode Island—in 2008, total economic output was $223 billion, larger than the economies of Morocco, Angola, Kenya, Ghana, and Uganda combined.

Bombay, India. Emerging from the upscale coastal retreats of India's elite is Antilia, a 560-foot skyscraper home for energy magnate Mukesh Ambani. Whether or not the tower is pretty—the contemporary high-rise somewhat resembles a haphazard stack of books—it is impressive, both for its size and extravagant price tag. It hosts three helipads, a movie theater, 168 parking spaces, and many other absurd amenities, all maintained by 600 servants. Antilia's owner purchased the whole package for the bargain price of one billion US dollars, making it by far the most expensive home ever built. Perhaps Ambani has earned it—after all, he is considered to be the fifth richest person in the world. But Antilia's posh features will clash dramatically with the regular Bombay residents living a few miles away, many in stunning poverty.

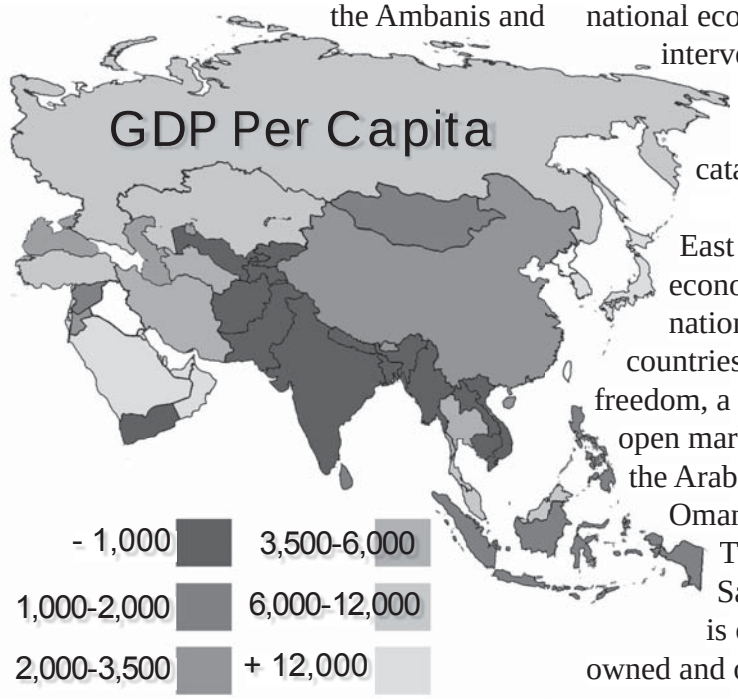
## VOCABULARY

***Purchasing power parity***: comparison of economic data across national and regional lines by adjusting for cost of living and a currency's buying power in a region
***Private sector***: part of the economy that is not owned or administrated by the government
***Public sector***: part of the economy that is owned or administrated by the government


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

In the woods off the main highways of Aspen, Colorado, one of America's favorite ski destinations, lies Hala Ranch, a gargantuan 56,000-square-foot property, complete with its own wastewater treatment plant and carwash. The owner is Saudi Prince Bandar bin Sultan, who rarely visits the ranch (the entire 95-acre complex remains vacant most of the year). The Saudi prince is friendly with many U.S. officials and was an important confidant of former Presidents George Bush and George W. Bush, first during Desert Storm and then during the campaigns in Afghanistan and Iraq. The prince has benefitted from Saudi Arabia's vast oil reserves, which have made the royal family fabulously wealthy, and improved the lives of average Saudi citizens.

What can we conclude from the three above examples? Asia has a colossal amount of money. The continent's total GDP in 2008 just missed the $17 billion mark, which topped even the far more developed European Union. But contrast the Ambanis and the Saudi princes with everyday citizens in Asia, and the dichotomy is almost too great to believe. Asia claims some of the world's wealthiest businesspeople and some of the most destitute families. The average income in India is several hundred US dollars a year, meaning that hundreds of millions of people live on less than a dollar a day. Other countries throughout the Middle East and Southeast Asia post similarly dismal showings: Afghanistan's GDP per capita sits around $400 US dollars, while Bangladesh, Cambodia, and Laos are not far behind. This is after millions and even billions of dollars in international aid are annually poured into these countries. Many question where the problem lies. In some cases, mismanagement has sucked funds dry and prevented citizens from bettering their lives. In other places, repressed economic climates have stifled private property, entrepreneurship, and the growth of businesses. Asia reflects the frightening consequences when government bureaucrats attempt to excessively interfere with the national economy. Continuous government intervention in (or takeovers of) Asian economies has uniformly failed here, in many cases catastrophically!

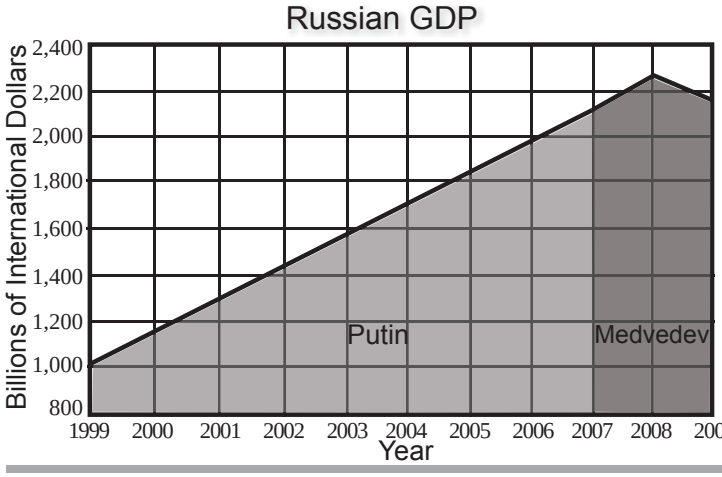



As cohesive as the Middle East is in many arenas, the level of economic freedom is one area where nations diverge noticeably. While no countries come close to U.S. levels of freedom, a few countries have somewhat open markets. Most of these are on the Arabian Peninsula—Saudi Arabia, Oman, the U.A.E., Qatar—while Turkey is also relatively free. In Saudi Arabia, the major industry is oil, which is government owned and operated. In recent years, the


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

government has tried to diversify sources of revenue, but so far the contribution of non-oil industries is still extremely low. This push has also included calls for privatization of various markets, but the Saudi government still enforces stiff regulations on the ***private sector***, and taxes are high. Until a decade ago, Jordan was a relatively closed market, as well, but a slew of privatizations and deregulations since 1999 has opened a freer economy. Turkey has likewise liberalized its economy and has benefitted tremendously, recently earning designation as a "newly industrialized country." Elsewhere in the Middle East, however, many economies are closed and oppressive, as government bureaucrats have sought to keep profitable industries in government hands. On the Index of Economic Freedom, Iran is rated alongside African governments near the very bottom. Over half of GDP comes from the ***public sector***, largely in the form of oil and natural gas, while heavy-handed regulation has stifled free market growth and development. Inflation is high, and freedom is low!

In 2009, *Forbes* magazine released an article tallying the number of billionaires in various world cities, and Moscow, Russia topped the list. After the fall of the USSR, Russia's economy hovered in the doldrums for years, then steadily grew during Vladimir Putin's presidency. Early on (and today), it was marred by high inflation and rampant mafia corruption. After eight years of government battles with crime and corruption, along with reduced military expenditures, however, Russia's economy has benefitted greatly. Unemployment was 9% in June 2009—high, but much of that was due to the global recession. In a new decade, Russia is positioned for continued growth and low national debt, its economy faring far better than in its formerly enslaved satellites to the south.




Central and South Asia are quite a different story. Turkmenistan, Uzbekistan, and Tajikistan all have strictly managed economies with tight government control. All three countries have expressed commitment to privatization and diversification; so far, none has been successful. Corruption runs unchecked, ***underemployment*** is high, taxes do not provide enough revenue despite being very high, and per capita GDP is generally low. One of the lone high points is that these countries have ***free***

## VOCABULARY

***Underemployment***: condition of not being employed to one's full potential, such as a full-time capable person working part-time or performing a job beneath one's education or skill level
***Free trade***: policy by which countries exchange goods or services without tariffs or quotas


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

***trade*** agreements with a handful of neighbors. Production levels and national budgets, however, do not allow for extensive trade in most industries. In India, millions of citizens are desperately poor, partly a result of the socialist system initiated after independence in 1947, the caste system, and Hindu restrictions on agriculture. India's 2008 GDP per capita was barely $1,000, or 143rd in the world. India is largely self-sufficient, importing little and exporting less. Increases and improvements in education have boosted India's economic fortunes as of late, even in the midst of a global downturn. But the mountain in front of the nation is imposing: the U.N.'s Human Development Report 2009 revealed that 76% of the population lives on less than two dollars a day.

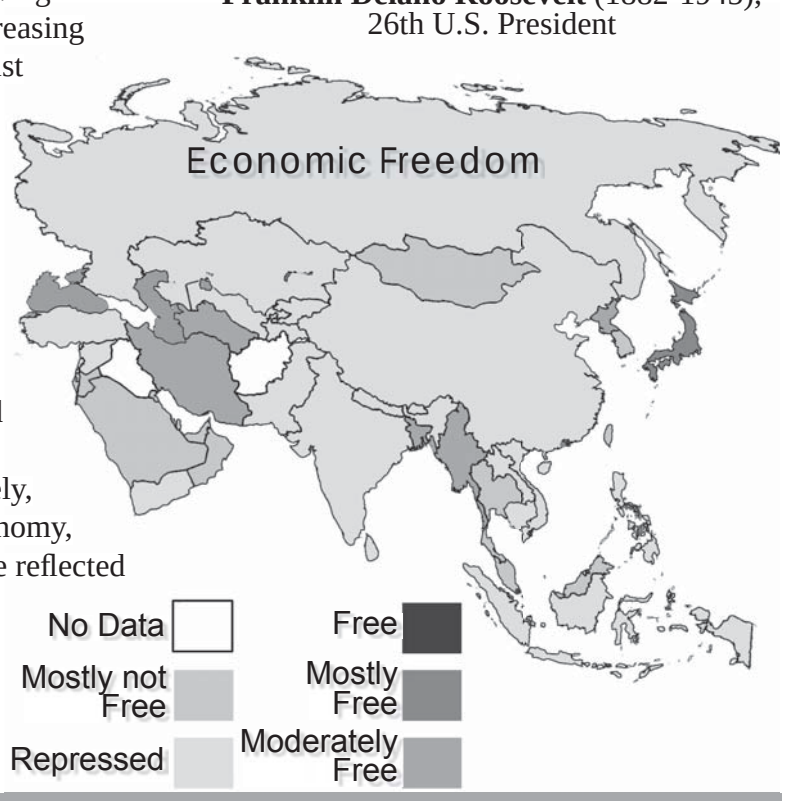

Hong Kong, China

In the Far East, economic systems vary. China has a rapidly growing economy characterized by increasing privatization, yet the communist government still controls most industries. Changes have not raised China's performance in the economic freedom category, which is still very low. One source of wealth for China in recent years has been interest payments on loans it has made to developed nations, such as the U.S. and European countries. Conversely, Japan has a markedly free economy, and its economic fortunes have reflected that. China's two special administrative regions, Hong Kong and neighboring Macau, are beacons of capitalism: if Hong Kong were considered a country, it would be the most free market nation in the world. The tiny Southeast Asian country of Singapore is close behind Hong Kong, with a strong commitment to capitalism and very high household income. Along with its extremely oppressive political climate, North Korea claims the most restricted economy in the world—virtually no business exists outside the government's hands.

## Life Principle

*Any government, like any family, can for a year spend a little more than it earns. But you and I know that a continuance of that habit means the poorhouse.*

**Franklin Delano Roosevelt** (1882-1945), 26th U.S. President





© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

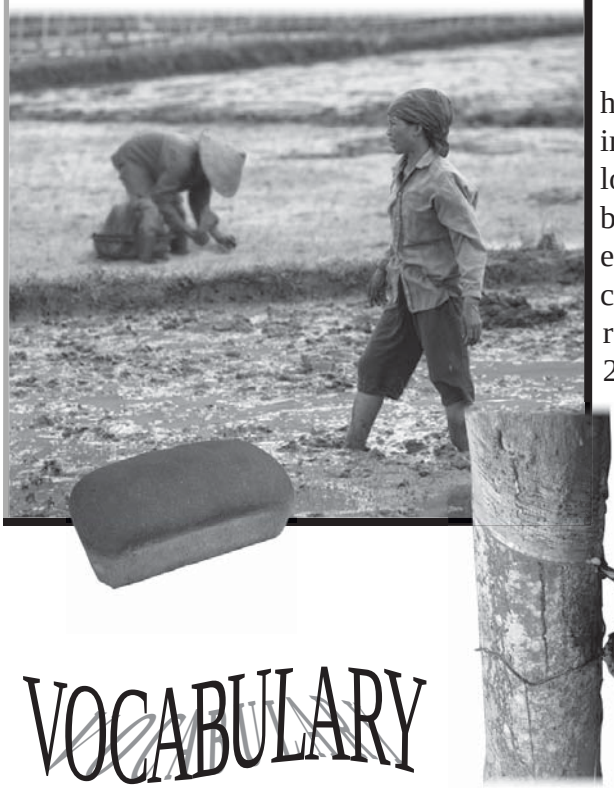
## Chapter 5



**Lesson 14**
*Natural Resources*

**Section 3**
*Lessons 11-15*



In January 2008, the price for a barrel of crude oil reached $100 for the first time in history following a steady increase in demand and in production costs. Prices had been relatively low for some time, lingering below $40 per barrel during the mid-2000s before gradually escalating. Driven by increased production costs and stronger-than-ever demand, prices rose dramatically through the early months of 2008. During summer, oil prices typically jump due to higher demand, as many families move or take vacations during these months, and 2008 was no exception: already-painful prices skyrocketed even higher, and businesses and regular citizens alike paid the price at the gas pump. In mid-July, a barrel of crude oil topped out at $147, the highest price ever recorded. Americans were not the only ones affected, despite paying nearly $5 a gallon for fuel in some markets. In Europe and throughout Asia, prices soared, and the topic became the primary news event of the summer as businesses scaled back transportation, airlines jacked up prices and subsequently took huge losses, and many commuters discovered mass land transit for the first time.

As fuel demand gradually tapered off during the late summer and in the fall, prices did as well. At the outset of 2009, many Americans were paying for gasoline half what they paid just six months earlier. Predictably, much of the outcry over high prices was directed at OPEC, the consortium of oil-producing nations located primarily in the Middle East. As relations between the U.S. and many OPEC countries are often tense, many Americans accuse OPEC of ***price gouging***

## VOCABULARY

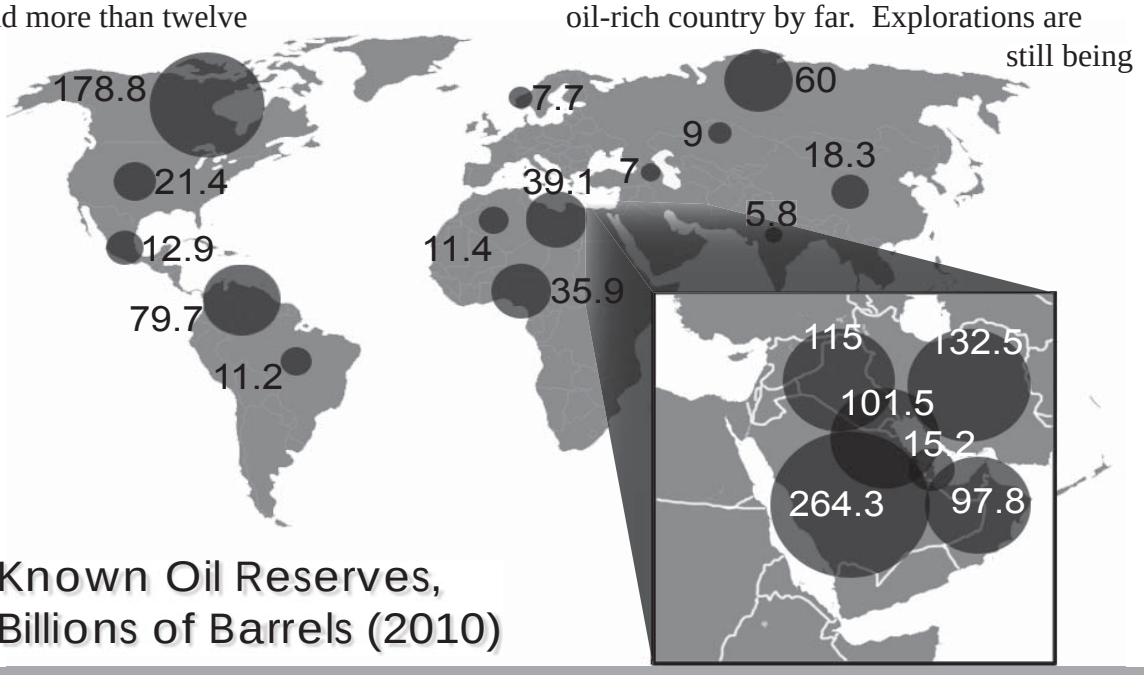
***Price gouging***: selling goods or services at unreasonably high prices
***Tonne***: 1,000 kilograms
***Radiation***: spontaneous emission of a stream of particles or electromagnetic rays
***Vulcanization***: process of treating rubber with sulpher at great heat to improve elasticity and strength


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

when selling to American markets. In some instances throughout history, there may have been some truth to these claims; this time, however, it was likely not Middle Eastern hostility but sheer circumstance. Global oil demand had been rising, as Westerners consumed more and more and developing countries like China, India, and Brazil became increasingly industrialized. Production prices had also risen steadily, and oil companies sought to recoup some of that loss via higher prices. Add to that a catastrophic hurricane season in the U.S.—OPEC's largest market—and you had all the makings of a price spike.

While the Middle East may not have raised prices maliciously, the region certainly benefitted from the events. Take a look at the oil reserves chart and you'll see that the Middle East is a vastly disproportionate source of the world's petroleum. The numbers are astounding: Saudi Arabia is the world's largest producer of oil, with more than 250 billion barrels of proven reserves. That's substantially more than second-place Canada's 175 billion, and more than twelve times the U.S. supply. When combined with huge deposits in Iran, Iraq, Kuwait, U.A.E., and other nearby countries, the Middle East's oil economy dwarfs even North Africa in production. The petroleum industry accounts for nearly half of Saudi Arabia's GDP and an astonishing 90% of exports. Revenues generated from oil have allowed glittering glass skylines to spring up from Arab deserts, dramatically boosting standards of living in a would-be impoverished region. In addition, oil corporations like Saudi Arabia's national company, Saudi Aramco, have become among the richest on the planet.

Oil is not the only natural resource in Asia, but it may be the most important. The Middle East is certainly not the only oil-rich region on the continent, although it is the most flush. Russia has an estimated sixty billion barrels; China has around eighteen, and Kazakhstan has a solid supply as well. (Incidentally, recent research has suggested the Orinoco Tar Sands in Venezuela may hold up to half a trillion barrels, which would make Venezuela the world's most oil-rich country by far. Explorations are still being




Known Oil Reserves, Billions of Barrels (2010)


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

conducted.) Yet, Asia has other natural resources that support and sustain many countries. Siberian forests are of huge importance in Asia and Europe. Vast swaths of the Russian taiga are densely covered by trees. Mineral resources are significant in some places. Russia and China are both major gold mining countries, while China produces a good amount of silver. Kazakhstan, and neighbors Turkmenistan and Uzbekistan, among others, have large mineral deposits, specifically uranium, of which Kazakhstan is the world's third largest producer. In Southeast Asia, the rubber plant is abundant, making Thailand and Indonesia the world leaders in production of tires and some textiles. Agriculturally, Asia is the world's leading rice grower—in much of Asia, rice is the staple food in people's diet, as bread is in America. Crops such as corn, wheat, and cotton grow throughout India, China and other Asian countries.



Chinese Rice Field

Aside from being the epicenter of world diamond production, South Africa has long been associated with gold mines. For more than a century, South Africa has led the world in gold production, harvesting nearly 80% of the world's total in 1970. In 2007, however, China topped South Africa as the world's leader; the two countries now compete intensely. China produced 276 ***tonnes*** in 2007, leading the pack in Asia. Production is mainly concentrated in eastern regions and is fueled by high demand internationally and domestically. To maintain its status as the world pacesetter, China must invest considerable energy in the industry. Indonesia has impressive gold reserves—including Grasberg Mine, the world's largest gold mine—though production trails China. Russia has substantial gold resources as well. Many are actually located across the Ural Mountains in Europe, but Russia as a whole benefits from their presence. The poor country of Uzbekistan also produces a surprising volume of gold for its size, good for ninth place worldwide in 2006. Other producers include the Philippines, Malaysia, Kazakhstan, Kyrgyzstan, and Mongolia.

Other minerals are present, prevalent, and pervasive throughout Asia. Uranium, used in power generation and nuclear weaponry, is found in Kazakhstan and Russia. The former is the world's third largest producer and benefits greatly from the mineral. Much of the supply is in the Chu-Sarysu Basin in south central Kazakhstan, with some other smaller stores in Syrdarya and near Astana. Russia produces more than 3,000 tons a year, mostly in southeastern Siberia. The mine at Krasnokamensk is responsible for 90% of Russia's output. It supports a settlement of about 56,000 people. Uzbekistan also mines substantial amounts of uranium throughout the country. While the mineral is valuable militarily and in power plants, it also poses a threat to health, and mines and usage must be protected carefully. In Krasnokamensk, ***radiation*** levels from the mine are exceptionally high, and evacuations and relocations have been performed in recent years. Where uranium has been used in warfare, such as in Kuwait during the Gulf War, dangerous levels of radiation still linger.

Other mineral resources are



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

significant as well. China produces a great deal of silver, while most of the world's natural gas is produced in Asia. Russia hosts a quarter of the planet's reserves of natural gas, which supplements oil as an important commodity. Iran and Qatar also have large gas stores. A few countries have small copper reserves, particularly Indonesia, China, and Kazakhstan. (None of these supplies come close to Chile's quantities, however.)


Latex Dripping

Most Asians do not work in gold mines or on oil drilling rigs; they tend farmland their ancestors have held for generations. Among the more unique agricultural activities in Asia is rubber harvesting, which is predominant in Indochina and the archipelagos nearby. Nearly 95% of the Earth's rubber is collected from Asia; two-thirds comes from Thailand and Indonesia alone. Similar to cacao, rubber is collected from rubber trees, which are harvested by a process called tapping. Collectors make a small slit in the tree bark and drain the liquid rubber into a bowl or coconut shell, then seal it airtight to keep it from solidifying. Typically, this occurs on large farms or tree groves, and often it is a family's primary source of income. Because rubber trees thrive in wet areas, the jungles of India, Bangladesh, and Southeast Asia are prime locations for rubber farms. Rubber undergoes a process called ***vulcanization***, by which it is combined with sulfur or another element under high heat to increase its durability and elasticity.

Visit any Chinese restaurant in the United States, and your food is likely to be served on a heaping bed of rice. That's because in Asia, rice is the center of the diet, a fact that has made rice the world's second most widely grown grain (after corn). The lush plains of Eastern China are perfect for rice; thus, most East Asian countries dedicate considerable land to rice production. India, Indonesia, Bangladesh, Vietnam, Thailand, Burma, the Philippines—all these nations produce large quantities of rice. Some large corporations have engaged in cultivation in recent decades, but in many places, rice production is still carried out by subsistence farmers on small farms. Because the vast majority of rice is consumed in Asia, farmers do not have to ship their products around the world.

China and India are also important wheat growers, leading the world in production. Russia, Pakistan, and Turkey also produce large quantities of wheat, which is used in breads, cereals, crackers, pasta, and alcoholic drinks such as beer and vodka. Sorghum grows throughout Asia in the Middle East and India. Soybeans, though not an important crop, are produced in limited quantities in China and India. On other fronts, several important hydroelectric plants exist in Russia and elsewhere. The world's largest power plant of any kind, Three Gorges Dam, lies on China's Yangtze River, and has a planned maximum output of 25,615 megawatts. Timber is important in the rainforests of Southeast Asia, although logging threatens rare and diverse ecosystems there. Tragically, opium is a major cash crop in Afghanistan and China.

## Life Principle

***The love of money is the root of all evil.***

**Timotheus** of Lycaonia



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

# World Geography

## Chapter 5



**Lesson 15**
*Imports, Exports and Major Industries*

**Section 3**
*Lessons 11-15*

**Imports, Exports and Major Industries of Asia**





In 2007, *Time* magazine ran an article entitled "India's Call-Center Jobs Go Begging." "Call centers are symbols of India's economic boom," the article began. "With Anglicized names and feigned Western accents, Indians handle credit card problems and troubleshoot computers, collect debts and conduct customer satisfaction surveys. Over the past decade or so, relatively high salaries in the call center sector have attracted thousands of applicants across the country. But now the boom is going bust because India's college graduates and young job seekers just don't want to be bothered with the business anymore." The New Delhi writer went on to extrapolate on that trend. Thanks to an injection of decent-quality education and improving economic fortunes, ***call centers*** are simply being outrecruited, mostly by Indian companies that serve Indians at normal hours rather than Americans at 3 AM. To be fair, the article points out that many call centers are healthy and thriving, with some exploring options like tuition assistance and rotating schedules, so that employees do not endure months without seeing sunlight. But the trend away from call centers is intriguing, especially considering their boost to the Indian economy in recent years.

India's flirtation and subsequent boredom with call centers reveals the extent of global markets in the 21st century. In America, paying thousands of workers to talk on phones for ten hours a day is often cost-prohibitive, so many companies outsource call centers overseas, where wages and operating costs are lower. In India, what would

## VOCABULARY

***Call center***: center equipped to handle a large volume of telephone calls, usually for customer service

***Brain drain***: large emigration of individuals with technical skills or knowledge, normally due to conflict, lack of opportunity, political instability, or health risks



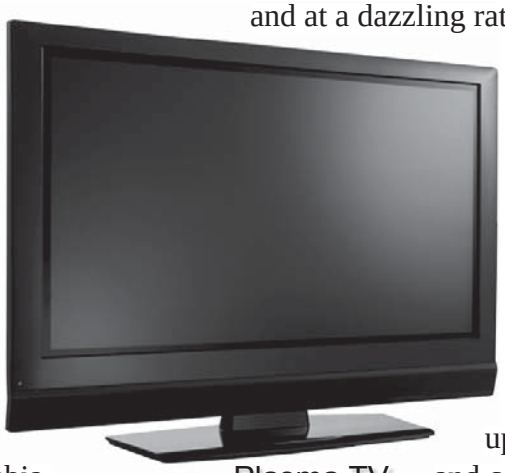
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

be considered paltry pay by U.S. standards is actually quite a lucrative salary, and many call center employees earn good wages. But India—along with China—is quickly industrializing, in spite of persistent poverty and accompanying problems. Service and manufacturing industries are increasing, sometimes going head-to-head with Western competitors. Bombay-based Tata Motors released the Tata Nano in 2009, the world's smallest and least expensive production car at just over US $2,000. Although the vehicle is targeted for the Indian market, Tata is considering a concerted effort against Daimler's Smart brand and Toyota and Honda hybrids, which are far more expensive. The global marketplace encourages India to enter the auto manufacturing arena.

Throughout Asia, economies are changing. Traditional standbys that have long floated economies are dwindling, while new industries like information technology and investment banking are taking their place. Where change is slower to permeate, trends like privatization and technology have rejuvenated many sectors, leading to economic growth and political stability. In many areas, this is hard to see. Iran's oppressive political and economic climates have stifled growth for years, and the resulting Iranian ***brain drain*** is a troubling development. But the West has cause to be uneasy. Many economists predict that within a few short decades, China will have the largest economy in the world, knocking the U.S. out of first place. India, Indonesia, Saudi Arabia, Russia—all these countries stand poised to compete vigorously with Europe and America during the next fifty years or so.

One sector in which this will occur is manufacturing. Auto manufacturing in Japan is well developed, with companies such as Toyota, Honda, Nissan, and Mazda offering a wide array of brands and lines. Japanese cars entered the United States in 1982 and have since competed extremely successfully with Detroit offerings like GM, Ford, and Chrysler. Japanese autos are immensely popular in Japan because of their reliability and affordability. In 2008, Toyota overtook GM as the world's largest car manufacturer; many Japanese cars are driven throughout Asia. Concepts like ***hybrids*** and a general trend toward smaller vehicles have guided Japanese auto production. Yet Japan is not the largest car manufacturer on the continent. That distinction goes to China, which claims a number of brands of its own, but also manufactures Japanese, European, and American brands. In Indonesia, South Korea, and the Middle East, cars are also becoming big business. Automobile producers in Asia are all smiles: the car market in Asia is expected to skyrocket during the next twenty years.

Technology is also infiltrating Asia, and at a dazzling rate. Japan has long paced the world in electronics and communications developments, and innovations that reach the United States are often old news in Japan. In the latter half of the 2000s, cashless vending machines began springing up in upscale shopping malls and commercial districts



Plasma TV



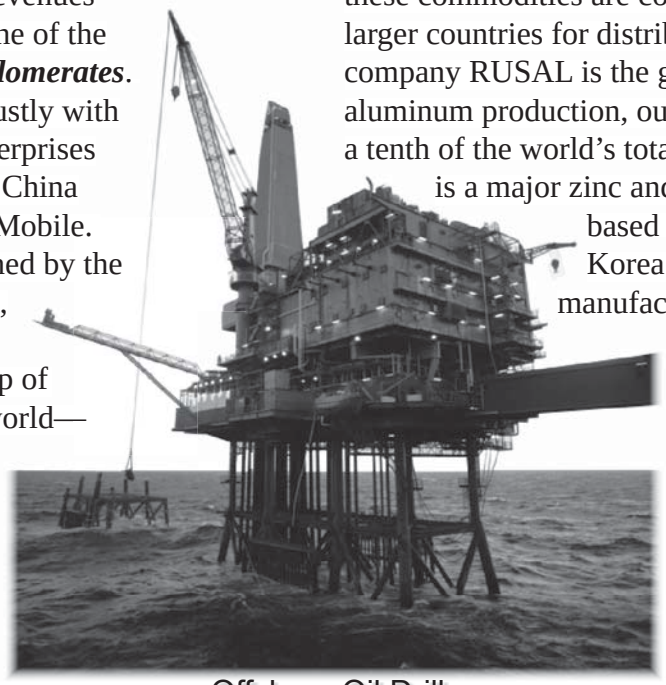
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

throughout the U.S. These machines allow consumers to simply swipe a debit or credit card to pay for a purchase instead of digging through pockets for loose change. But Japan bid goodbye to cash at vending machines years ago. Other technologies, like high-definition DVDs a few years ago and now 3D televisions, debuted in Japan before coming west.




Many Japanese companies are household names in electronics: Sony, Panasonic, Toshiba, and Yamaha, among others. In fact, Yamaha is an interesting case: the company specializes in a unique collection of products: musical instruments, consumer electronics, watercraft. But Japan is losing its monopoly on the tech industry. South Korean company Samsung is one of the largest names in an assortment of electronics, from plasma TVs to cell phones. Samsung now accounts for one-fifth of South Korea's exports. It pulled in US $173 billion in revenues in 2008, making it one of the world's largest ***conglomerates***. China competes robustly with Western telecom enterprises with companies like China Telecom and China Mobile. China Mobile is owned by the Chinese government, but still boasts the largest subscribership of any telecom in the world—over 500 million—and has expanded geographical coverage to most of the country. Appliance manufacturer Haier, software developer Neusoft, computer maker Lenovo, and Internet search engine Baidu are all important names in China's technology sector.

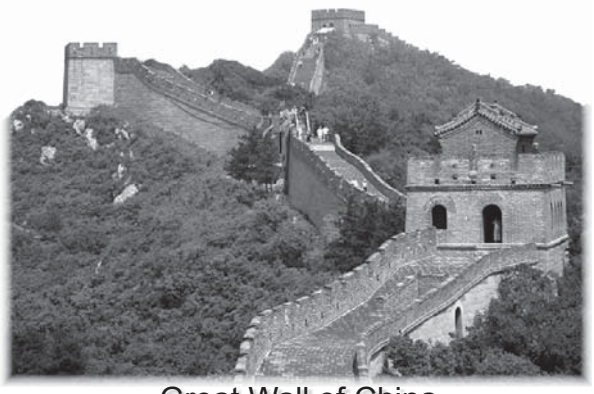
Progress can't hit every area equally, and in many areas, exploration and development of natural resources is still king. Nowhere is this more true than in the Middle East, where companies like Saudi Aramco almost single-handedly prop up their nations' economies. Indeed, a look at the world's largest oil companies by volume of reserves is a virtual tour of the Middle East: National Iranian Oil Company, Qatar General Petroleum Corporation, Iraq National Oil Company, and many others. Nearly all are state-owned, which both removes competition and enables higher prices. In Central Asia, countries like Kazakhstan and Tajikistan explore large reserves of a variety of metals: gold, lead, zinc, and uranium. Often, these commodities are collected by larger countries for distribution. Russian company RUSAL is the global leader in aluminum production, outputting more than a tenth of the world's total. Hindustan Zinc is a major zinc and lead producer based in New Delhi. Korea Zinc is a major manufacturer of zinc and other metals.


Offshore Oil Drill

A wide array of other industries exists in Asia. Asian airlines, such as Asiana and ANA, are important carriers in both Asia and the


© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

West. Retail stores and other service jobs are gaining momentum. Tourism is another huge market in large and small countries alike. Sites such as the Taj Mahal, the Great Wall of China, and other attractions throughout Japan, Siberia, and the Middle East pour millions of dollars into economies every year. Religious tourism is a big market in the Middle East. Islamic pilgrimages annually pull huge numbers of people to Mecca and Medina, Saudi Arabia, while Christians and Jews regularly visit Israel to see the historical sites and places important to their faiths.



Great Wall of China

## VOCABULARY

***Hybrid***: vehicle incorporating both a gas and an electric power source
***Conglomerate***: group of diverse companies under common ownership and run as a single organization

# Life Principle

*…he who will not economize will have to agonize.*

**Confucius** (551-478 BC),
5th century philosopher



© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.