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 4

WGO76348

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

PROFESSIONAL CREDITS

World Geography

Chapter 4, Text

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 4 TABLE OF CONTENTS

PAGE



Maps and Charts . . . . . iv-vii

SECTION 1



1. BORDERS AND BOUNDARIES 1-5



2. TERRAIN 6-10



3. BODIES OF WATER 11-15



4. CLIMATE AND PRECIPITATION 16-20



5. VEGETATION AND WILDLIFE 21-26

SECTION 2



6. FAMOUS EVENTS AND SITES 27-30



7. RACES AND ETHNICITIES 31-35

PAGE



8. LANGUAGES 36-40



9. RELIGIONS 41-45



10. TRANSPORTATION 46-49

SECTION 3



11. FORMS OF GOVERNMENT 50-53



12. DIPLOMATIC RELATIONS 54-57



13. ECONOMIC SYSTEMS 58-61



14. NATURAL RESOURCES 62-65

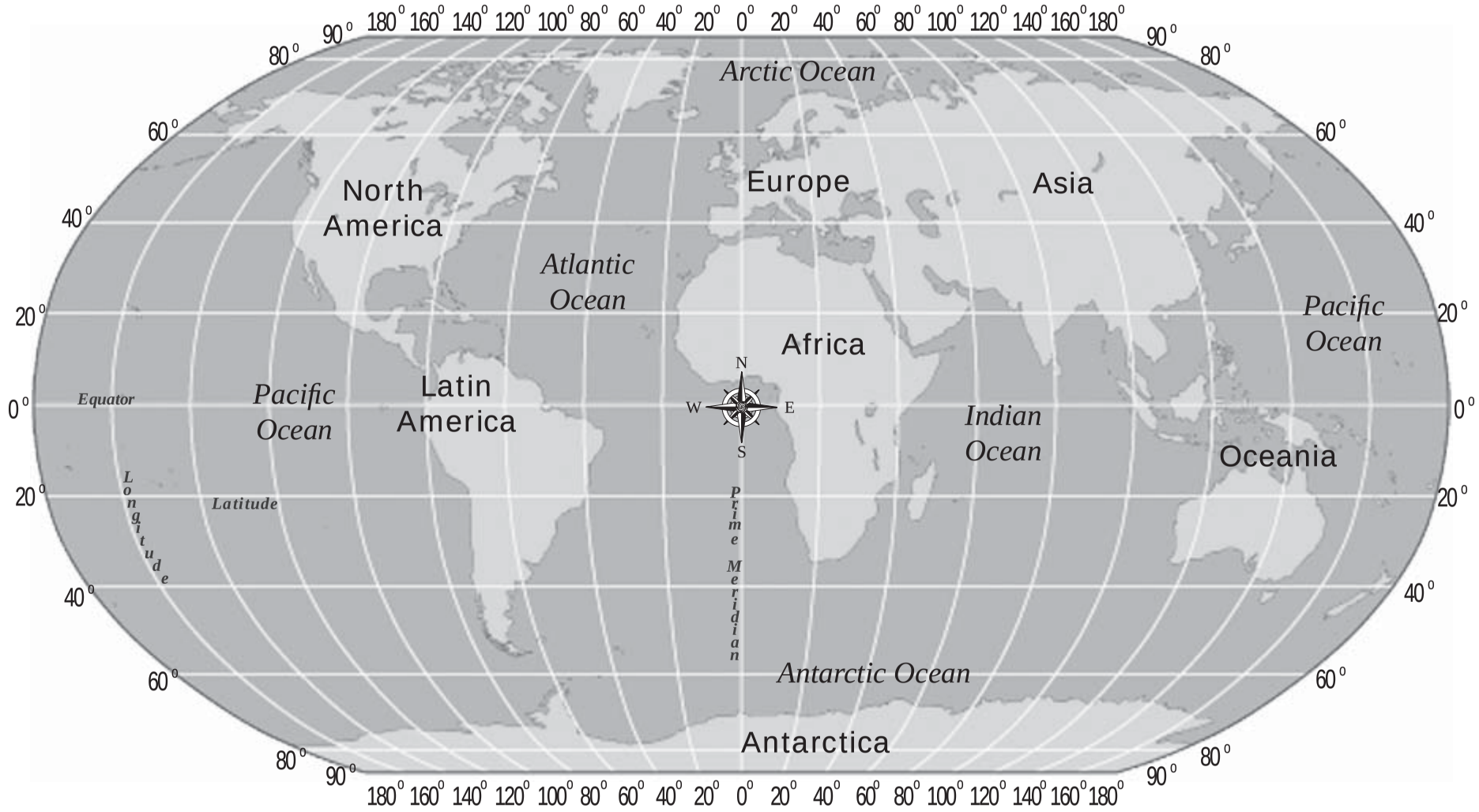


15. IMPORTS, EXPORTS, AND MAJOR INDUSTRIES 66-69

© 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.

Africa
Topographic Map

MAP C



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

Largest Metropolitan Areas

Africa



World Rank	Rank	Central City	Country	Population	Outlying Areas / Suburbs
16	1	Cairo	Egypt	14,800,000	Al-Jizah, Hulwan, Shubra al-Khaymah
25	2	Lagos	Nigeria	11,400,000	Agege, Alimosho
=32	3	Kinshasa	Dem. Rep. of the Congo	8,600,000	Djelo Binza, Makala
=40	4	Johannesburg	South Africa	7,350,000	Soweto, East Rand, West Rand
=57	5	Khartoum	Sudan	5,650,000	Omdurman
=75	6	Alexandria	Egypt	4,500,000	Ezba Khamis, Mamura, Abu Qir
=79	7	Algiers	Algeria	4,375,000	Bordj El Kiffan
81	8	Abidjan	Côte d'Ivoire	4,350,000	Anyama, Dabou
89	9	Casablanca	Morocco	3,975,000	
99	10	Cape Town	South Africa	3,675,000	Khayelitsha, Paarl, Somerset West
=102	11	Durban	South Africa	3,575,000	Phoenix, Umlazi, Mpumalanga
=107	12	Accra	Ghana	3,475,000	Madina, Adenta
114	13	Nairobi	Kenya	3,350,000	Githurai
115	14	Ibadan	Nigeria	3,300,000	Moniya
118	15	Kano	Nigeria	3,250,000	
=127	16	Dar es Salaam	Tanzania	3,125,000	Mbweni, Buyuni
131	17	Addis Ababa	Ethiopia	3,025,000	Akaki Kality, Gefersa, Koshim
=132	18	Luanda	Angola	3,000,000	
=156	19	Dakar	Senegal	2,625,000	Guediawaye, Rufisque
=168	20	Pretoria	South Africa	2,450,000	Mabopane
=182	21	Tunis	Tunisia	2,300,000	Chotrana, Ben Arous
=186	22	Harare	Zimbabwe	2,250,000	
=199	23	Douala	Cameroon	2,100,000	
230	24	Kampala	Uganda	1,900,000	Sentema
=232	25	Maputo	Mozambique	1,870,000	Marracuene

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

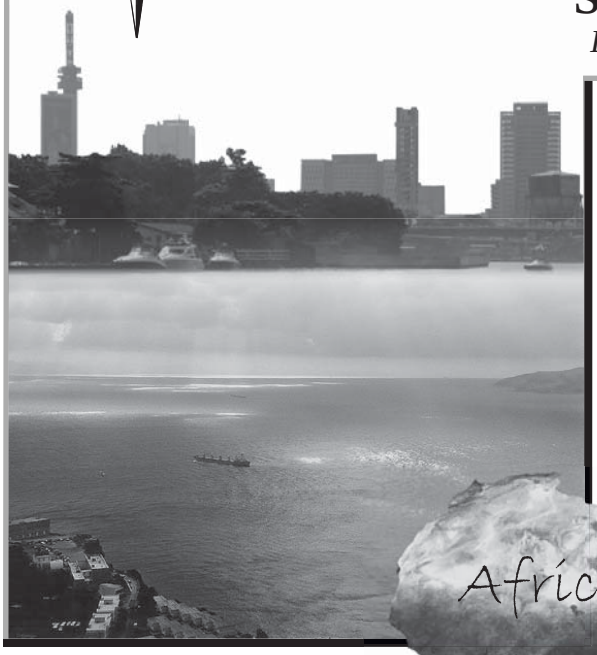
Chapter 4

Lesson 1
Borders and Boundaries

Section 1

Lessons 1-5

Borders and Boundaries of Africa





Take a look at a typical world map or ask the average person to pinpoint the middle of Earth's surface, and Africa will be right in the center. The continent, which is the world's second largest and second most populous behind neighboring Asia, is the landmass directly south of Europe and southwest of the Middle East, stretching from Tunisia in the north to South Africa in the south. It presently includes fifty-three sovereign nations, including the island of Madagascar, as well as a handful of islands in the Atlantic and Indian Oceans. Several territories are contained in Africa as well, including the disputed territory of Western Sahara, located in the far western Sahara Desert on the Atlantic coast.

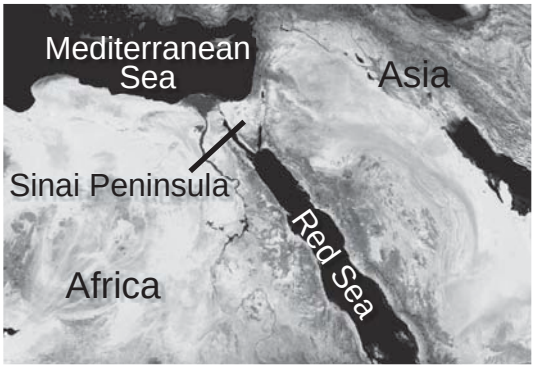
As with many continents and countries, the origins of the name Africa are uncertain. One prevailing theory, which has several versions but retains some common threads, is that it was derived from ancient Carthaginian people living in present-day Tunisia, who were called Afris. The name's origin is likely to have come from an aspect of the Afris' civilization, perhaps their tendency to use caves for shelter, as "Afri" sounds similar to the Berber word for "cave." The people lived in the area for several hundred years before Christ and were eventually conquered by the Roman Empire, who added the suffix "-ca", which meant "land." There is sufficient evidence to back up this theory; others do exist, however. One 16th-century historian proposed that Africa was named after a Greek word meaning

VOCABULARY

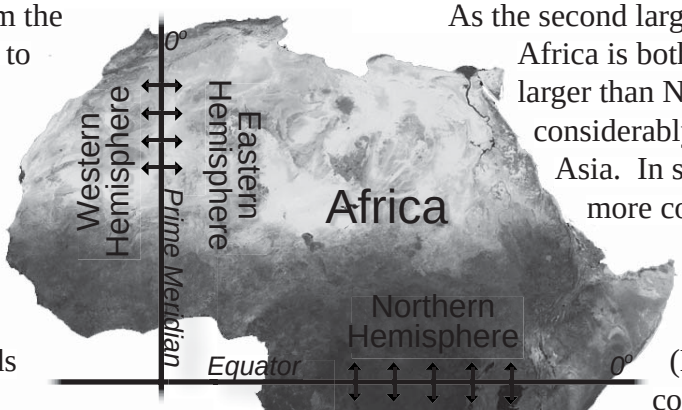
Temperate zone: zone of latitude lying between the tropics and the polar circles; approximately 23.5° to 66.5° north or south
Tropics: zones of latitude lying between the Equator and the temperate zones; approximately 0° to 23.5° north or south
Mortality rate: the ratio of deaths to total population in an area
Transcontinental nation: nation spanning more than one continent

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

"without cold," which is one fact European explorers noted upon exploring it in ancient times. The early Jewish historian Josephus, known for his records on the life of Jesus Christ and other ancient events, does not dispute the Carthaginian theory, but suggests that the Carthaginians took their name "Afri" from Epher, the grandson of Abraham in Jewish history and the Bible, whose descendants lived there.



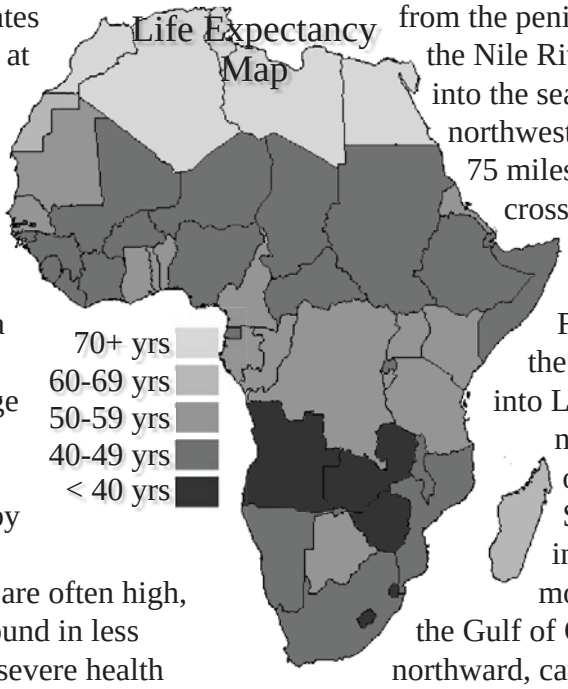
Other than Australia, Africa is perhaps the only inhabited continent whose definition has not been fuzzy or in flux through different eras of history. It connects with Asia at only one point, the Sinai Peninsula, which measures less than 100 miles from the Mediterranean Sea to the Red Sea at its narrowest. With the exception of Madagascar, which lies 225 miles off the southeastern coast, few outlying islands surround Africa, and the terrain does not fracture into a rough series of barrier islands and inlets like in southern South America. Because of these factors, the continent has historically been self-contained and easily definable. Geographically, Africa stretches from about 37°20'N in Tunisia to 34°50'S at Cape Agulhas, roughly centering it on the Equator. In the west, the African mainland reaches as far as 17°30'W in Senegal, although the islands of Cape Verde are technically the westernmost place in Africa at 25°24'W. The easternmost point is located just shy of 57°28'E in Somalia, which actually reaches farther east than the island of Madagascar. Africa is thus the only continent other than Asia, located in four hemispheres. (Regarding Asia, the continent is located chiefly in the Northern and Eastern Hemispheres. A small portion of Russia crosses into the Western Hemisphere, however, and several Indonesian islands traditionally considered Asian are located in the Southern.) It is also unique in that it is the only continent with land in both ***temperate zones***, though the majority lies in the ***tropics***, or tropical zones.



As the second largest continent, Africa is both considerably larger than North America and considerably smaller than Asia. In size, it is actually more comparable to North America, covering nearly 11.7 million square miles (North America covers 9.5 million). Its countries span a range from miniscule to quite large: the smallest is the Seychelles, an archipelago north of Madagascar in the Indian Ocean that covers just 174 square miles, while Sudan encompasses nearly a million square miles, 30% larger than

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

Alaska. Population estimates for 2009 peg the continent at one billion, with the vast majority located south of the Sahara Desert, which blankets the entire top third of the continent. Demographically, population trends in Africa are a mixed bag, both promising and tragic. Huge portions of Africa live in abject poverty, surviving living conditions that are by far the worst in the world. Because of this, birthrates are often high, a curious reality usually found in less developed countries. But severe health woes keep ***mortality rates*** among the highest in the world, and life expectancy is frighteningly low—such as in Swaziland, where the average age of death is 32. Lack of access to clean drinking water, diseases carried by insects and rodents, and a continent-wide AIDS epidemic have reduced lifespans here, so while Africans continue to have large families, many die in infancy or childhood or early in their adult lives.



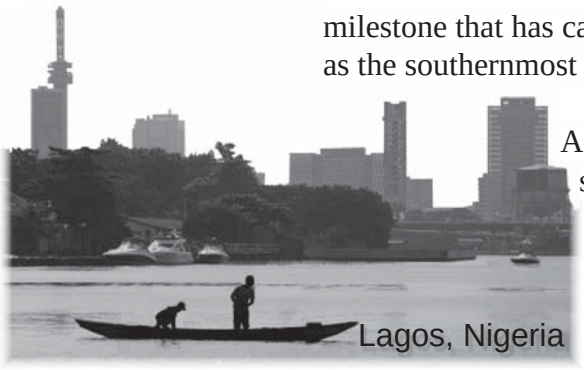
Africa's outer borders are, for the most part, synonymous with its coastline, as the continent is nearly entirely surrounded by water. In the north, the continent is bounded by the Mediterranean Sea, which stretches from Egypt to eastern Morocco. Egypt is actually one of the world's few ***transcontinental nations***, its Sinai Peninsula technically located in Asia. The Egyptian coastline takes a relatively westerly route from the peninsula, passing the Nile River Delta's bulge into the sea. It assumes a northwestern course about 75 miles past Alexandria, crossing into Libya and hooking sharply south at Benghazi. For about 150 miles, the coast carves south into Libya, then turns northwest again, outlining the Gulf of Sidra. It continues into Tunisia, growing more irregular toward the Gulf of Gabès, then snakes northward, carving several peninsulas into Tunisia. Rounding the tip of Tunisia, the coastline continues in a west-southwest direction, crossing into Algeria and heading for the Strait of Gibraltar. In Morocco, it forms several sections of land that jut into the ocean, the most significant of which occurs at the Strait of Gibraltar, the Mediterranean Sea's only inlet from the Atlantic. Morocco protrudes into the sea here across from the southern tip of Spain, and the narrow inlet in between measures only nine miles across at its narrowest point.



Around the strait, the coast turns southwest and runs rigidly straight for nearly 200 miles, finally curving slightly west at Rabat, Morocco. Further southwest is the city of Casablanca, the setting for the famous 1942 movie *Casablanca* starring Humphrey Bogart. From here the coastline

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

takes a generally southwest direction, nudging in occasionally all the way down through Mauritania. Here, it runs south, forming several natural harbors through Nouakchott, the nation's capital. Crossing into Senegal, the border begins edging out and comes to a point at Dakar, then turns south through the 50-mile coastline of the Gambia, which is almost an enclave of Senegal. In small Guinea-Bissau, the coast fragments temporarily, turning southeast through Guinea, Sierra Leone, and Liberia. Near Tabou, Côte d'Ivoire, Africa turns directly east. Several large cities are located on the ocean here, like Côte d'Ivoire's Abidjan and Ghana's Accra. The coastline turns somewhat northeast in Ghana and passes through Togo and Benin, both of which are small, narrow countries. Shortly past Lagos, Nigeria, the second largest metropolitan area in Africa, the border turns south and then east again, finally running south to Cameroon. If one were to draw a north–south line roughly from Algeria to Nigeria, the countries between the Atlantic Ocean and this line form what is referred to as the bulge of Africa.


Lagos, Nigeria

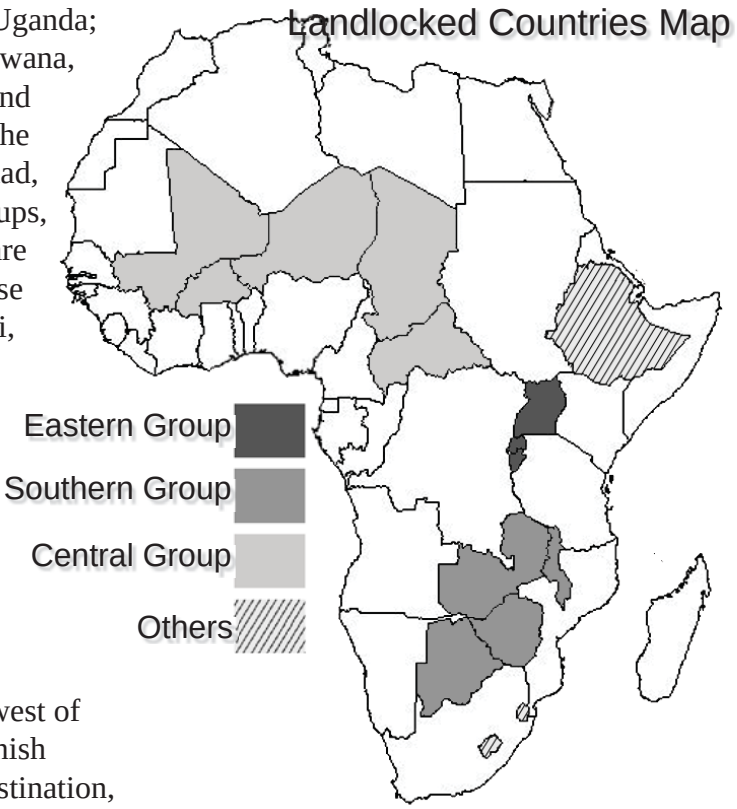
South of Cameroon lies Equatorial Guinea, whose southern border is actually a degree north of the Equator. The Equator runs through Gabon, which is directly south of Equatorial Guinea. Its coastline is more rugged than countries farther north and generally heads southeast. Africa's border continues through the small Congo and then through the much larger Democratic Republic of the Congo, whose border is, paradoxically, much smaller than Congo's. The sparsely populated countries of Angola and Namibia take the coast south for several hundred more miles, and finally in South Africa, Cape Town lies on the coast. At the Cape of Good Hope, Africa's border turns more west than south, a significant milestone that has caused it to be mistaken as the southernmost point on the continent.

Rounding South Africa, the coast is slightly irregular through Port Elizabeth, curving northeast gradually and then passing into Mozambique. This country's southern half is largely uninhabited, and the coast slithers northeast toward Madagascar, which is comparable to Mozambique in length. In Tanzania, several small bays lie on the coast, and then Kenya takes the coastline northeast again. Somalia is shaped somewhat like a sickle, occupying a narrow band on the coast and then cutting sharply west in the north. Ethiopia cuts into the country. North of Somalia lies the Gulf of Aden, as the coast turns abruptly west and then northwest. The Gulf of Aden connects with the Red Sea, which separates Africa from Saudi Arabia by about a hundred miles. Djibouti, Eritrea, and Sudan lie along the Red Sea, which ultimately leads up to Egypt. The Suez Canal connects the Red Sea to the Mediterranean Sea, completing the outer border of Africa.

Internally, Africa has fifteen landlocked countries—the most of any continent in the world. There are three contiguous groups of these countries in the continent: one in the east, one in the south, and one in the center. The eastern group

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

consists of Burundi, Rwanda, and Uganda; the southern group consists of Botswana, Zimbabwe, Zambia, and Malawi; and the central group is Burkina Faso, the Central African Republic, Mali, Chad, and Niger. In addition to these groups, Ethiopia, Lesotho, and Swaziland are also landlocked. The largest of these countries are Niger, Chad, and Mali, by far, which are, respectively, the third through fifth largest landlocked nations in the world. Lesotho is an enclave of South Africa. Off the coast of Africa, Cape Verde is an independent country that lies about 375 miles west of Senegal. São Tomé and Príncipe, Africa's second smallest nation, is located about 150 miles west of Gabon. The Canary Islands, a Spanish territory and well-known tourist destination, are 60 miles west of southern Morocco. Africa's most important island, Madagascar, is the fourth-largest island in the world, covering 227,000 square miles.



Life Principle

A person must know not only when, where, and how far to go, but the point at which to stop!

- Anonymous

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

World Geography

Chapter 4

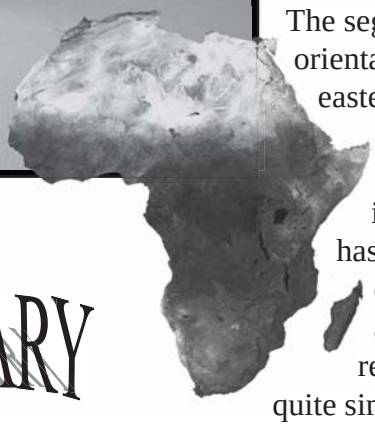


Lesson 2
Terrain



Section 1
Lessons 1-5





Africa is essentially two perpendicular segments adjoining and forming a corner with each other. In the north, an east–west segment stretches across the northern tropics, spanning the entire distance between Somalia in the east and Senegal in the west. In the east, a similar segment runs north to south, stretching from Tunisia on the Mediterranean Sea to South Africa, located in the southern temperate zone. The segments are not only perpendicular in their orientation, but they are close in length. From easternmost point to westernmost point, Africa measures about 4,600 miles across; from northernmost point to southernmost, it measures about 5,000 miles. This has made the continent perhaps the most distinguishable of any major landmass, and coupled with its relatively few terrain regions, it has also rendered Africa's terrain quite simple to map. The continent is large, so high mountain peaks and low valleys are definitely present. But Africa has the least diverse terrain of any inhabited continent, except Australia. The highest point, Mount Kilimanjaro in Tanzania, is 19,340 feet above sea level, which is taller than the highest point in Europe, Australia, and Antarctica. The lowest, the shores of Lake Assal in Djibouti, is an extraordinary 512 feet below the ocean. These extreme heights and depressions comprise a relatively small percentage of the surface, however. Most of Africa is dominated by large areas with little change in elevation, vegetation, and landforms.

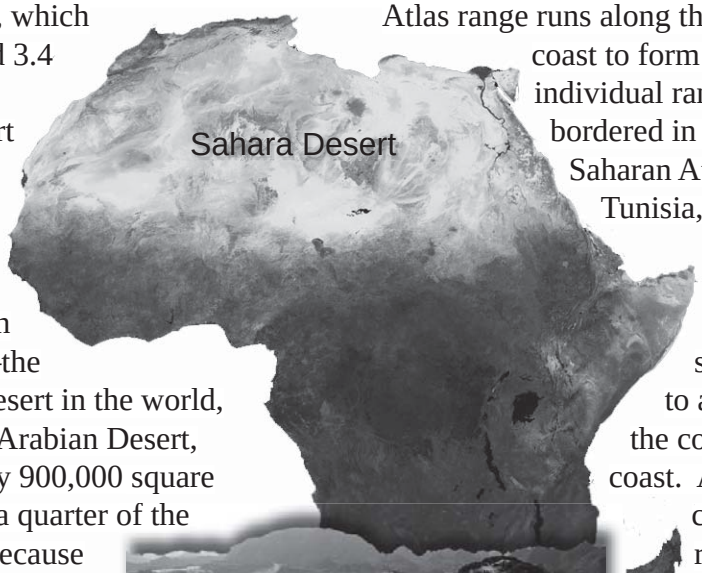
The most obvious terrain feature in Africa is the Sahara Desert. This desert, the largest in the world, blankets

VOCABULARY

Tectonic plate: large section of Earth's crust
Gorge: deep valley between cliffs often carved from the landscape by a river; similar to a canyon
Dune: ridge of sand created by the wind
Caldera: large crater caused by the violent explosion of a volcano that collapses into a depression

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

the entire northern portion of Africa down to about Nigeria, which is an area around 3.4 million square miles. The desert covers an area roughly the size of the United States, which is mind-boggling in many respects—the second largest desert in the world, the neighboring Arabian Desert, measures a paltry 900,000 square miles, or barely a quarter of the Sahara's size. Because of this, the region in the north of Africa is often referred to as Northern Africa, Saharan Africa, and simply the Sahara, interchangeably.



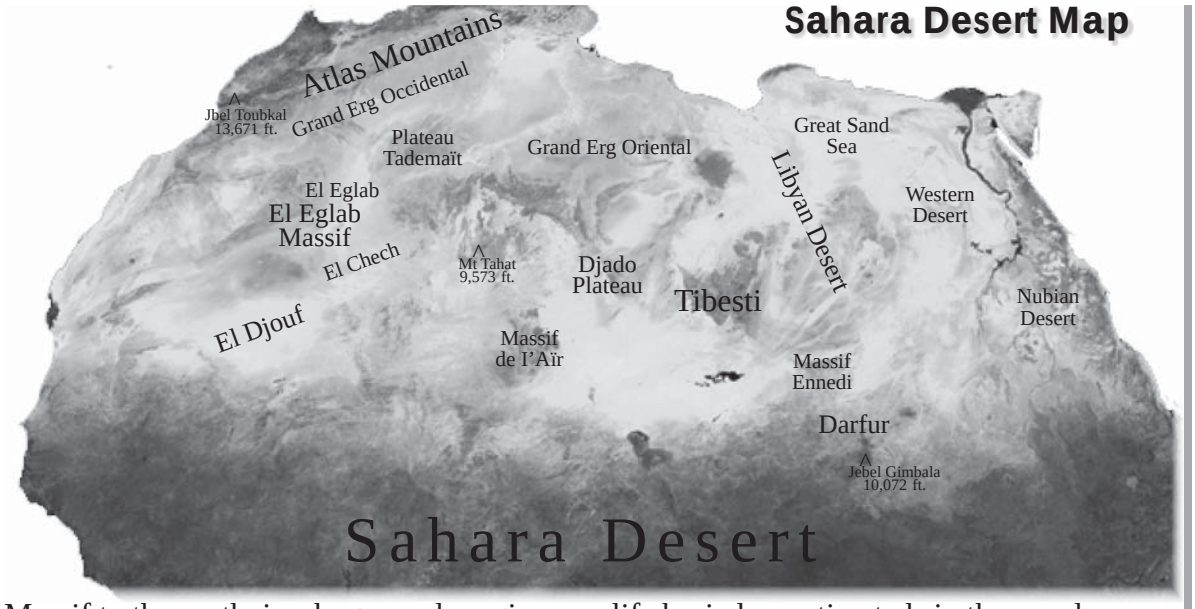

Sahara Desert

The topography of the Sahara shows some variation across its barren soils, which is to be expected given its immense size. The most significant feature in the north is the Atlas Mountains, which stretch across northern Morocco, Algeria, and Tunisia in a southwest–northeast band. The mountain range measures approximately 1,500 miles in length and can be subdivided into several distinct ranges, which largely correspond to individual countries. In Morocco, the Anti-Atlas, High Atlas, and Middle Atlas Ranges run in roughly parallel lines, the Anti-Atlas the southernmost and the Middle Atlas the northernmost. The tallest peaks in the entire range are, as expected, in the High Atlas range, including Jbel Toubkal, which at 13,671 feet is the highest summit. In Algeria, the Tell Atlas range runs along the Mediterranean coast to form the longest of the individual ranges. These are bordered in the south by the Saharan Atlas Range. In Tunisia, the Tell and Sahara ranges converge to form the Aurès range, which is short and comes to an abrupt halt on the country's eastern coast. As is typical of high coastal mountain ranges, the Atlas Mountains lie next to the ***tectonic plate*** boundary between Europe and Africa, which some scientists believe was at least partially responsible for forming the mountains.

South of the Atlas Mountains, the Sahara is characterized by two large plateaus in the west and east, divided by a chain of mountains running northeast to southwest. The western plateau is the larger of the two, and because of its size, it is usually broken up into several small plateaus for naming purposes. In Western Sahara and Mauritania, the terrain is somewhat high in elevation—several thousand feet in places—and somewhat flat until the Adrar Plateau, which is really no plateau at all, but a series of rocky hills and ***gorges***. This feature separates the Atlantic coastal regions from El Djouf, the largest plateau in the Sahara. El Djouf, which together with El Eglab


Jbel Toubkal
13,671 feet

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



Massif to the north, is a huge sandy region with ***dunes*** hundreds of feet high and lies in Mauritania, Mali, and western Algeria. This area gives way to the Tademait Plateau in northern Algeria, which arcs around to meet the two Grand Erg regions—an area with sand stretching to the horizon, and hardly any vegetation. Towards Libya, the Sahara's western plateau connects with its eastern. Libya is more rugged than Mali and Mauritania, marked by canyons, crevices, and rocky hills. In western Libya and eastern Egypt, the Great Sand Sea covers a huge swath of land with some of the tallest sand dunes in the Sahara, many nearly 2,000 feet high. In between these two plateau sections, in southern Algeria, Niger, and Chad, lie several mountain ranges. From northwest to southeast, the most important are the Tassili-n-Ajjer, the Ahaggar (actually directly south of the Tassili-n-Ajjer), and the Tibesti. The Tibesti Mountains are the highest in the Sahara itself: the highest in the range, Emi Koussi, is 11,302 feet high. In southern Niger and southern Chad, the land is quite flat.

A fascinating thing about the Sahara Desert is the thousands of fossilized marine life buried an estimated six thousand years ago in sand dunes within sight of the Great Pyramids. Archaeologists are amazed at the presence and quantity of the bones of whale-like creatures and shellfish embedded in stones used to construct the Egyptian pyramids. Without question, the Sahara Desert was at one time beneath a great ocean. Ancient human and animal bones, as well as lush vegetation, have been discovered buried beneath rock and sand layers across the entire northern regions of Africa. Geological evidence indicates that a lush region inhabited by humans, birds, animals and plants was suddenly replaced by aquatic life. Ancient drawings in caves depict a sudden and violent rain. Archaeologists and geologists estimate that a vast cataclysmic event approximately six thousand years ago violently changed the lush North African area into a desert. Petroleum companies drilling in the Sahara Desert have discovered great reservoirs of fresh water aquifers in excess of the volume of water in the American Great Lakes. These subterranean storehouses of water were apparently "captured" when a violent geological upheaval occurred in the region.

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

This geological upheaval in North Africa coincides with evidence of a simultaneous cataclysmic event which occurred in America's Yellowstone National Park. Apparently, a violent and turbulent event about six thousand years ago dramatically erupted on a scale greater than any event in the history of Earth. That unmatched event brought great volumes of subterranean water and molten material from the bowels of the Earth to replace the lush surface area with hard, volcanic rock. Amazingly, the floor of Yellowstone Lake supports evidence of ancient human and marine life that was suddenly preserved in rock during an eruptive event unparalleled in history. Regions of China and Mesopotamia show similar evidence of a violent event that occurred approximately six thousand years ago. Written accounts of a universal flood are documented in stone and clay tablets in such diverse cultures as China, North and South America, Mesopotamia, and Africa.


Mount Kilimanjaro
19,331 feet

The area in the flatlands of Chad and Niger is actually considered the Sahel, and it is low-lying and not as dry as the Sahara. The lands here are plateaus in places and gently rolling hills in others, but generally the elevation stays between 600 and 1,200 feet. This region forms a narrow band across Africa from Senegal to Eritrea, and is a classic transitional zone in many ways, especially in its climate, vegetation, and wildlife. In the southern part of Africa's bulge, the topography is more varied but lower. Higher in the north and east, the land gradually tapers off in Guinea, Côte d'Ivoire, Ghana, and Nigeria. In Cameroon, a small belt of mountains runs from the coast northeast through the country. Though it is short, these mountains are surprisingly high—Mount Cameroon is well above 13,000 feet. Many of these mountains are volcanic, so crater lakes and ***calderas*** are present in places. South of the Sahel, much of the terrain is exceedingly flat, such as in southern Sudan, where savannas dominate the landscape.

Africa's highest mountains are found in the east. From Eritrea down through Ethiopia and touching Kenya and Uganda, the Ethiopian Highlands are the most impressive mountain range on the continent. Highlands and mountainous areas sprawl across the entire country so that most of Ethiopia's large cities are located at high elevations, including its capital, Addis Ababa, over 7,500 feet above sea level. The highest peak is Ras Dashen, which measures 14,928 feet. Tucked in between Eritrea and Somalia, Djibouti escapes most of the rugged areas. Southern Somalia and southeastern Kenya lie east of the Ethiopian Highlands, which form a relatively narrow north–south band with foothills and plateaus stretching out east and west—the coastal area of Kenya, in fact, is quite low and flat. Mogadishu, the Somalian capital, lies in a strip of desert on the Indian Ocean at sea level, while Kenya's capital, Nairobi, lies about 5,400 feet above sea level, as it is


Ras Dashen
14,928 feet

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

farther inland. Many of the mountains in the Ethiopian Highlands are volcanoes, some of which are still active. Following the mountains south, the Ethiopian Highlands give way to the Aberdare and Rwenzori Ranges, which include a short stretch of mountain peaks in Kenya, Uganda, Tanzania, and the Democratic Republic of the Congo. These ranges, which are a result of the tectonic feature called the Great Rift Valley, account for many high Kenyan summits, but notably not Mt. Kilimanjaro, which lies farther south. Kilimanjaro, Africa's highest mountain at 19,340 feet, is the tallest freestanding mountain in the world, meaning it is not part of a larger mountain chain. West of these towering heights, Lake Victoria forms a large basin with dramatically lower elevations, culminating at the lake's shores some 3,720 feet above sea level.

In the Democratic Republic of the Congo (DROC), which dominates a large chunk of central Africa, the mountains in the east gradually smooth out to an area of central plains. Toward the east and the south, hills begin to reassert themselves, and some of the DROC's southern cities rise a few thousand feet in elevation. This region is overwhelmingly savanna, marked by scattered, scraggly trees and long stretches of grassland; large wildlife roam the land freely. On the Atlantic coast of Congo, Angola, and Namibia, low mountain ridges run not far from the shore, descending sharply into the picturesque Atlantic beaches. Farther east in Zambia, Zimbabwe, and Botswana, high table lands span huge stretches, allowing African winds to whip across the continent at high speeds. In Botswana, Namibia, and South Africa, the Kalihari Desert covers a 350,000-square mile section of semi-arid land. Most of South Africa is somewhat rugged, but the Great Karoo in the northwest is a large plateau with rainfall totals similar to the Kalihari.

The far southeastern portion of Africa is somewhat hilly with interspersed plateaus. Many cities and towns here are high in elevation, such as Johannesburg, South Africa, at 5,750 feet. Lesotho and Swaziland lie almost entirely in low mountains, while Zimbabwe's highest point is Mt. Nyangani, 8,504 feet above sea level. Northern Mozambique is rugged, as well, but the southern regions are not. They lie in a coastal plain of low elevation, one that inches into South Africa and Zimbabwe. The entire effect of the African topography from the DROC to South Africa is that of a dinner plate, with a flat middle but a rim that rises higher, protecting the plateaus inside. In Madagascar, the Tsaratanana Massif mountain range is central, with a broad area of inhabitable highlands. The hills do not leave much coast in the east, descending sharply, but the west is wider, as a large area of plains gradually edge out to the ocean.

Life Principle

Even though it is good to dream big dreams, we must always keep our feet on the ground.

- Anonymous

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

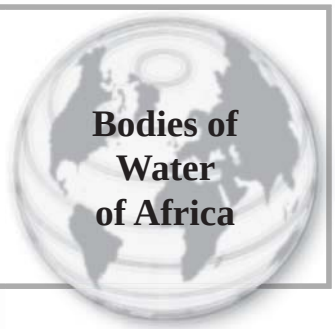
World Geography



Chapter 4

Lesson 3
Bodies of Water

Section 1
Lessons 1-5





Some geography texts erroneously pinpoint the source of the Nile, the longest river in the world, at Lake Victoria. This lake is impressive by any standard or measuring stick. By surface area it is the world's fourth largest lake, covering nearly 27,000 square miles in three countries—somewhere between the size of West Virginia and South Carolina. By volume of water, it comes in at eighth place worldwide, containing some 650 cubic miles of water.



Nearly all of the lake's water is a result of precipitation, merely rain and snow falling and collecting in the lake's basin. At 3,720 feet above sea level, it is one of the higher lakes in the world, especially in Africa where mountain ranges are few and far between. Because of this, its shores are exceptionally picturesque, with the savannas of the Serengeti kissing its beaches in the southeast and the Great Rift Valley bordering it farther north. The lake is the single largest fishing location on the continent, supplying food for hungry natives and trophies for visiting recreational anglers. This lake, however, nestled squarely between Tanzania and Uganda with a tiny portion spilling into Kenya, is not the headwaters of the mighty Nile River.

The Nile is more multifaceted than this. While it is true that an arm of the Nile, formally known as the White Nile, does run through Lake Victoria before converging with the shorter Blue Nile at Khartoum, Sudan, the Nile's earliest trickles begin far from Victoria. Several hundred miles southwest of the Lake, in the southern reaches of Rwanda, Nyungwe Forest gives birth to several small, insignificant streams that slowly and meanderingly join, growing in width

VOCABULARY

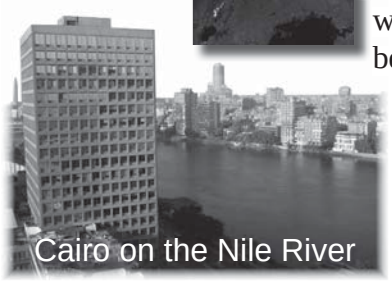
Exploding lake: lake that is prone to limnic eruptions, in which large volumes of carbon dioxide beneath the surface suddenly erupt to the surface
Endorheic basin: basin that has no outlet to a sea or ocean
Reservoir: artificial lake used to store water
Salt lake: lake with a high concentration of salts and other minerals; usually an endorheic basin

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

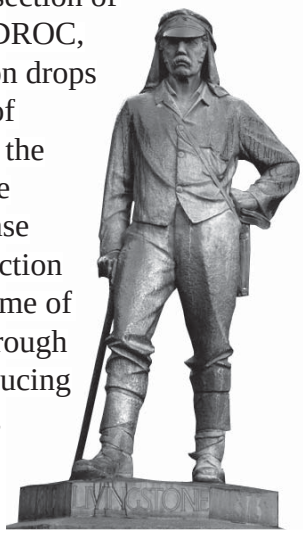
and volume until they empty into Lake Victoria. Like the Amazon in South America (which most geographers agree is slightly shorter than the Nile, but makes the Nile look like a quaint country brook in a volume comparison), the Nile's source is of little significance other than its birth of the river that it is synonymous with Africa. From this remote location to the river's colossal delta on the Mediterranean Sea, the Nile traverses 4,132 miles of Africa—about the distance from Barrow, Alaska, to Key West, Florida.



The Nile is to Africa nearly what the Amazon is to South America, far more than what the Mississippi is to the United States. It travels through ten countries in its persistent search for the sea. Its river basin covers nearly one-tenth of Africa, more than 1.3 million square miles. Much of its significance stems from the fact that it is an oasis in the Sahara Desert, the only place capable of sustaining much life. Several huge metropolitan areas lie on its banks, including Cairo, Egypt—the largest in Africa with 15,000,000 people—and Khartoum and Juba, Sudan. In Egypt, 95% of the population lives along the Nile, which is ironic because its shores account for only about 5% of the country's area. As it nears the sea, the Nile opens like a flower into its delta, upon which live half of Egypt's population. This area is of huge value to Egypt, most of which lies in barren Sahara Desert. Agriculture thrives here, and wildlife shifts from desert species to tropical flowers, birds, and reptiles. Intriguingly, the Nile is not wide at all. People who visit the region and expect a huge tropical boulevard leave disappointed. Instead, the Nile is merely a narrow blue ribbon in the parched sands of northern Africa, faithfully watering those who live along it and carrying its sediment, soils, and silt to the sea.

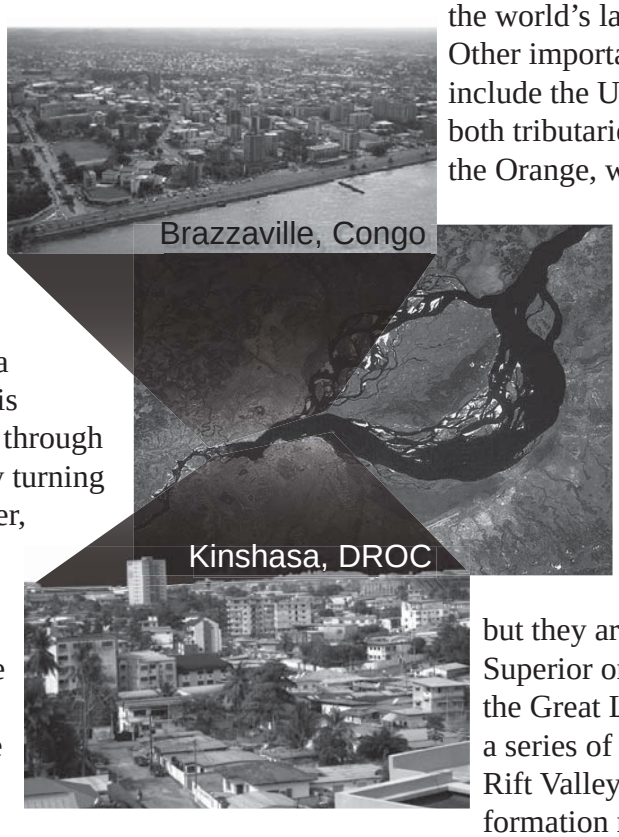

Cairo on the Nile River

Away from the Nile, other rivers are nearly as impressive. The Congo River runs through 2,900 miles of Africa, from Zambia to the Atlantic Ocean on the border between the DROC and Angola. Though its length is considerably shorter than the Nile's, it is much larger: it ranks second in flow rate behind the Amazon. Furthermore, it is the world's deepest river, with certain points descending 750 feet below the surface. Some of these deep stretches occur in Livingstone Falls, named for the famous Scottish explorer, David Livingstone. Livingstone Falls are a treacherous section of the Congo in the DROC, where the elevation drops rapidly over a series of falls winding through the walls of canyons. The river produces immense power through this section because its great volume of water is channeled through narrow crevices, producing deep rapids and large, albeit low, waterfalls. Its drainage basin is actually larger than


David Livingstone

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

the Nile's: at over 1.4 million square miles, it is the second largest drainage basin in the world. The twin cities of Brazzaville and Kinshasa, which are the capitals of Congo and the DROC and lie across the river from each other, are the most important cities on the water route. Aside from these, other medium-sized cities of several hundred thousand people lie on the Congo's banks.



In western Africa, the Niger River dominates the waterscape. Beginning in Guinea, it follows a haphazard route out of the Guinea Highlands in which it is birthed, heading north through Mali and then abruptly turning southeast through Niger, Benin, and finally Nigeria. It drains into the Gulf of Guinea on the Atlantic Ocean, the somewhat protected section of water where Africa's coastline curves from generally east–west to generally north–south. The Niger River, 2,600 miles in length, is curiously named in that it spends only about 250 miles in Niger. Far longer stretches lie in Mali and Nigeria. Not far from its ocean outlet, the 870-mile Benue River meets the Niger River, becoming its principal tributary. The Niger has a massive drainage basin along its entire length; but particularly in Niger and eastern Mali, it pulls water from as far as Algeria, deep in the Sahara Desert.

On the east coast of Africa, the Zambezi River is king. It is 2,200 miles long and runs from Zambia to Mozambique, finally dumping its contents into the Indian Ocean about halfway up the country's coast. Other than its length and large delta, the Zambezi is important as a source of hydroelectric power and for the Victoria Falls, which lie on it. The falls are 360 feet high and over a mile wide, forming the world's largest water curtain. Other important rivers in Africa include the Ubangi and Kasai, both tributaries of the Congo; the Orange, which runs through South Africa; and the Limpopo.

In the United States, people often refer to the Great Lakes, a group of five mini-seas on the U.S.–Canada border. In Africa, people also refer to the Great Lakes, but they are not speaking of Superior or Huron. Instead, the Great Lakes of Africa are a series of lakes in the Great Rift Valley, the geological formation responsible for the Ethiopian Highlands and other high mountains, like the Rwenzoris. Interspersed between the high peaks of the region are natural depressions where rainwater and other precipitation collect, and into which mountain streams and glacial runoff trickle down. The largest of these lakes is Lake Victoria; others include Lake Tanganyika, Lake Malawi (also called Nyasa), Lake Turkana, Lake Albert, Lake Kivu, and Lake Edward. Three of these lakes—Victoria, Albert, and Edward—drain into the White Nile River. These

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

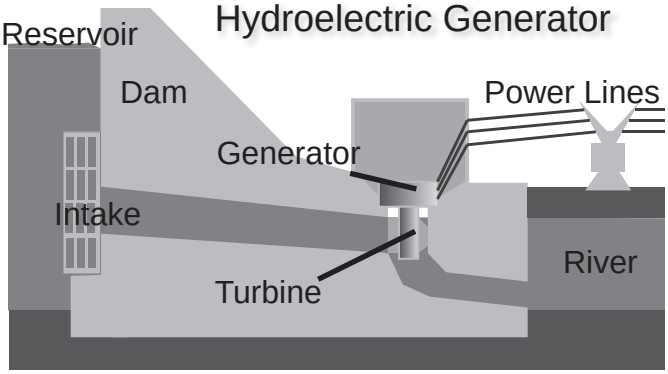
three, the only Great Lakes with European names, were first known in Europe after their discovery by Irish explorers, and were named for various members of the Irish royal family. Because Africa was aggressively colonized by European powers in the 19th and 20th centuries, the names remained. Various lakes in this group are notable for different reasons. Turkana, for example, is the largest desert lake in the world. Tanganyika is the third-deepest in the world (behind the Caspian Sea, which some geographers consider a sea or an ocean, and Russia's Lake Baikal). Lake Kivu, lying between the DROC and Rwanda, is an ***exploding lake***, perhaps the largest in the world. Lakes of this kind are subject to limnic eruptions, an unusual phenomenon in which large amounts of carbon dioxide in the lake's depths suddenly swell to the surface, dispersing across the landscape and posing risks of suffocation and asphyxiation to life nearby. Because the lake's shores are densely populated, and because nearby volcanoes could be triggered by such an event, geologists fear a Lake Kivu eruption could take a massive toll both financially and in terms of human life.



Lake Kivu

Outside the Great Lakes region, Lake Chad is probably the most important lake. Like some other lakes in Africa, it is an ***endorheic basin***, though an extremely shallow one. On average, the 520-square mile lake measures just five feet deep—meaning people can stand in the lake far from the shore. It is located in Chad, Nigeria, Niger, and Cameroon, and is of supreme value because it is the major water source in the sun-baked Sahara for hundreds of miles. The Chari River is the main source of water. Historically, the lake has grown and retreated again over the centuries, its surface area fluctuating dramatically. In 1960 it was twenty times as large as it is today, but heavy irrigation on the Chari River coupled with reduced rainfall has cut water to the lake. In addition, overgrazing by local livestock has increased evaporation levels, as fertile soils and plants that once soaked up water are now gone, and the water that cannot be absorbed is evaporated.

Other than these, few lakes of significant size exist in Africa. In Ghana, Lake Volta is the world's largest ***reservoir***, used for hydroelectric power and irrigation. At 3,275 square miles, it is located in the east of the country and supplied by the Volta River, which originates in Burkina Faso and empties into the Gulf of Guinea. In neighboring Côte d'Ivoire, Lake Kossou is the larger of the country's twin lakes, both of which lie on rivers cutting south through the country to the ocean. The other is Lake Buyo, located west of



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

Lake Kossou. Both are artificial lakes created by dams. In the Sahara, ***salt lakes*** such as Chott el Djerid in Tunisia fluctuate seasonally, receiving minimal rainfall during summer and warming to extremely high temperatures. This lake, and others like it such as Chott el Gharsa, has a salt crust above the water. The crust is thick enough to hold a person's weight, and, in some places, it can support the weight of a vehicle, so that the lake can theoretically be crossed in a car. The lakes have an unearthly appearance because of the salt concentrations and were used in the filming of the original *Star Wars* movies.

Life Principle

In times of potential conflict, it is always good to be pouring oil on troubled water.

- The Venerable Bede,
7th/8th century Anglo-Saxon monk and scholar

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

World Geography

Chapter 4

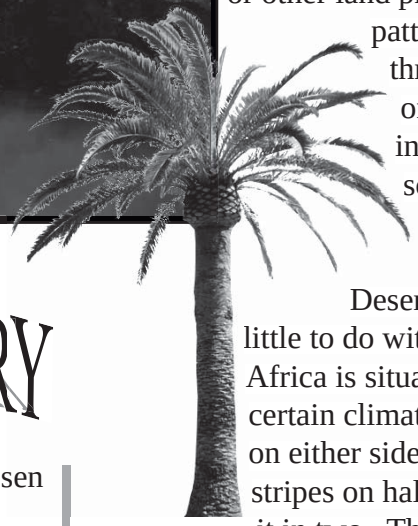


Lesson 4
Climate and Precipitation

Section 1
Lessons 1-5







Just as mapping Africa's terrain is quite simple for a continent its size, so mapping its climate is perhaps easier than one would think. Certain common factors contribute to the ease of both of these tasks. Africa, as has been mentioned, has an exceedingly regular coastline, with very few outlying territories, barrier islands, or other land prone to more unusual climactic patterns. The continent is quite flat throughout most of its area—the only true highlands are in the east in Ethiopia and Kenya, with some scattered heights in neighboring countries, and in the Atlas Mountains of the northern Sahara Desert. Furthermore, although it has little to do with Africa's terrain, the fact that Africa is situated on the Equator means that certain climate zones exist in the same latitudes on either side, much as if you painted watercolor stripes on half a sheet of paper and then folded it in two. This appearance of certain climate zones both north and south of the Equator means Africa is remarkably predictable in climate, at least compared to other continents. And while this is not to say that the continent's climate is uniform—because that is certainly not true, as evidenced by the existence of both the Sahara Desert and the tropical rainforests of Congo—Africa displays less climactic diversity than, say, South America, Earth's other major landmass in the Southern Hemisphere.

Four climate zones in Africa comprise well over 90% of the continent's area. In the north, the vast Sahara Desert has an arid climate, which blankets nearly the

VOCABULARY

Mitigate: to extenuate; to lessen the degree or severity of
Oasis: tract of fertile land in a desert
Monsoon: prevailing wind that changes direction with the seasons, often accompanied by precipitation
Harmattan: dusty Sahara trade wind that blows toward West Africa during winter
Squall: sudden, sharp increase in wind speed

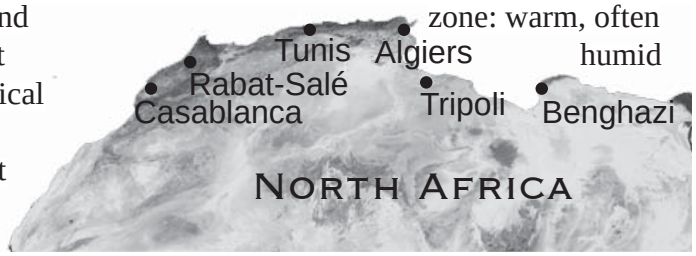
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

top third of the continent. Beneath this, the transitional Sahel is a semiarid band across the continent, separating the desert of the north with wetter, lusher tropical areas farther south. This strip of semiarid is narrow, and about the latitude of the Gambia, or halfway down Sudan, a tropical wet and dry zone takes over. This zone is so named because it lies in the tropics, and is thus warm and balmy year-round, but precipitation can vary wildly. Some areas in the north, near the Sahel, can endure years of very little precipitation, supporting only grasslands and open plains. On the other hand, some areas receive ample precipitation annually, watering the well-developed trees and thirsty bushes that live there. Interestingly, some areas in this region alternate between wet and dry years. Stretching from Senegal, Niger, and Eritrea to Namibia, Zimbabwe, and Mozambique, this is by far the largest zone on the continent. Finally, a tropical wet zone, made up of mostly tropical rainforest, carves into the tropical wet and dry zone at the Equator. The zone includes a sliver of Nigerian coastline as far west as Lagos, but is largest in Cameroon, Gabon, Congo, and the DROC. Another sliver of rainforest exists in Sierra Leone and Liberia. Madagascar includes all of these climate designations except arid.

Four other zones cover small areas of Africa. In Ethiopia and several countries nearby, a highland zone lies in the mountains. Many of the peaks here are snowcapped and blustery, and despite the tropical latitudes, temperatures can drop fairly low. Around the Mediterranean Sea lies—not surprisingly—a Mediterranean climate zone, even in the high mountains of the Atlas chain. In South Africa, and in the tiny nations of Lesotho and Swaziland, a marine zone crops up, and, finally, a tiny fraction of South Africa is humid subtropical, with warm and wet, but not quite tropical, conditions.



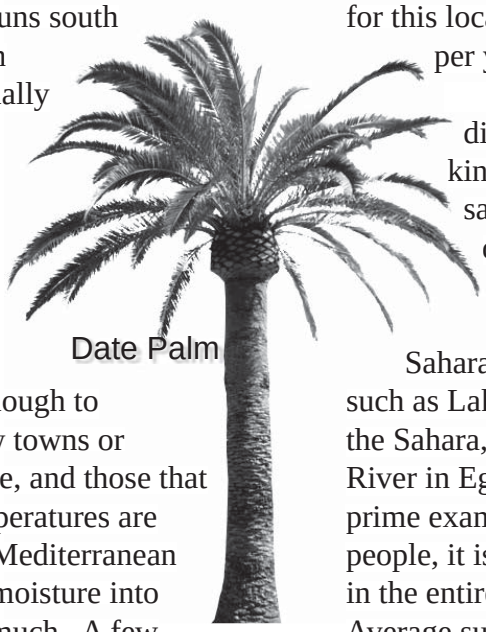
From Morocco to Libya, Mediterranean climate is the norm. The zone actually covers only the coastal and near-coastal areas of this region. It begins in inner Morocco, about halfway between Algeria and the troubled Western Sahara border, and sweeps along the coast to include Casablanca and Rabat-Salé, Morocco; Algiers, Algeria; Tunis, Tunisia; and Tripoli and Benghazi, Libya. Climate in this region is typical of a Mediterranean zone: warm, often humid summers; mild winters; and wet seasons during the winter months. In reality, nearly the entire Mediterranean rim sports a Mediterranean climate zone (Egypt is one exception: the hot desert trumps the sea's moderating influence and keeps weather unpleasant). Because this region is not far from the Equator, temperature variations between winter and summer are narrow. In Casablanca, summertime highs average in the high 70s or low 80s, while wintertime lows remain in the 40s or 50s. Algiers is somewhat hotter, with highs in



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

the 80s and low 90s during the summer, but the cool sea breeze ***mitigates*** the heat. Some areas of this region can indeed get very hot—Tunis has recorded many days near 120°F, even though averages are not near this high. More than any other factor, however, elevation determines climate in the Mediterranean. Ifrane, Morocco is not far from Casablanca, but because it is in the mountains, it recorded the lowest temperature in Africa's history, -11°F. In the Atlas Mountains, summer highs over 60°F are rare.

A band of semiarid climate of about the same thickness runs south of the Mediterranean zone. It covers virtually the rest of Morocco, another small part of Algeria, and about one-third of Tunisia. Rain here is scarcer than in the Mediterranean, though not scarce enough to be labeled arid. Few towns or settlements exist here, and those that do are small, as temperatures are nearly unbearable. Mediterranean breezes blow some moisture into this region, but not much. A few small settlements exist around ***oases***, such as Touggourt, Algeria. Date trees are among the staple trees in these oases.


Date Palm

It is difficult to describe conditions in the Sahara Desert, which runs from Mauritania to Sudan and northern Algeria to central Niger. About half of the desert receives less than three-quarters of an inch of rain annually. (In comparison, California's Death Valley, the driest place in North America, generally receives at least two inches per year). Other places can receive up to four inches, but even these numbers are misleading. The Sahara Desert is and has, historically, been prone to ***monsoons***. These seasonal storms, whose prevalence in the desert has diminished in recent decades, bring virtually the only rainfall in the Sahara. When they arrive, downpours can be heavy and flood the sun-drenched sand, providing years' worth of rainfall in the course of hours. The effect of this is that a given location could have one ten-inch rainstorm every five years, with practically no precipitation in between, and the resulting average rainfall for this location would still be two inches per year.

Temperatures in the Sahara discourage extensive life of any kind. Rock, gravel, and huge sand dunes cover most of the desert, prohibiting even the hardiest grasses or most rugged cacti. Few people live in the Sahara except near water sources, such as Lake Chad (technically not in the Sahara, but close) and along the Nile River in Egypt. Faya-Largeau in Chad is a prime example of this: with about 14,000 people, it is the largest populated place in the entire northern half of the country. Average summer highs peak over 110°F, oppressing the small population who survives there thanks to an underground water source. The highest temperature ever recorded on Earth was in the Sahara in 1922 at Al'Aziziyah, Libya, when the medium-sized city recorded heat of 136°F. In Egypt, many people brave the Sahara's heat, but they do so along the banks of the Nile River.

Beneath the Sahara, the semiarid stripe of the Sahel sees some greenery and increasing human settlement. Traditionally,

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

the Sahel is defined as the area directly south of the Sahara receiving more than 200, but less than 600, millimeters of rain per year. Temperatures here can be hot, and winter–summer variations are even less pronounced: Dakar, Senegal averages highs in the 80s eleven months of the year, and Niamey, Niger averages highs of 108°F in April. Rainfall increases from north to south, but the area is still prone to long and devastating droughts. Commonly, trees and flowers will blossom during the wet season, often in fall or winter, only to die again during dry spells of summer.

In the huge section of Africa that is tropical wet and dry, equatorial conditions are the norm. Because the section is so large, it is impossible to provide specifics from every area, but in general, temperatures are warm, rainfall is plentiful, and winds vary by elevation and season. Variations in temperature, both from summer to winter and from day to night, are nominal, especially in countries very near the Equator, like Cameroon, Gabon, and the DROC. In Africa's bulge, the wet season occurs in the fall, its peak coming usually during September. Ghana has never seen temperatures drop below 50°F, and other countries in the area are similar. In Ghana and other Western African nations, the ***harmattan*** moderates temperatures, bringing warm, dry air from the Sahara and lowering humidity levels.


Cape Town, South Africa

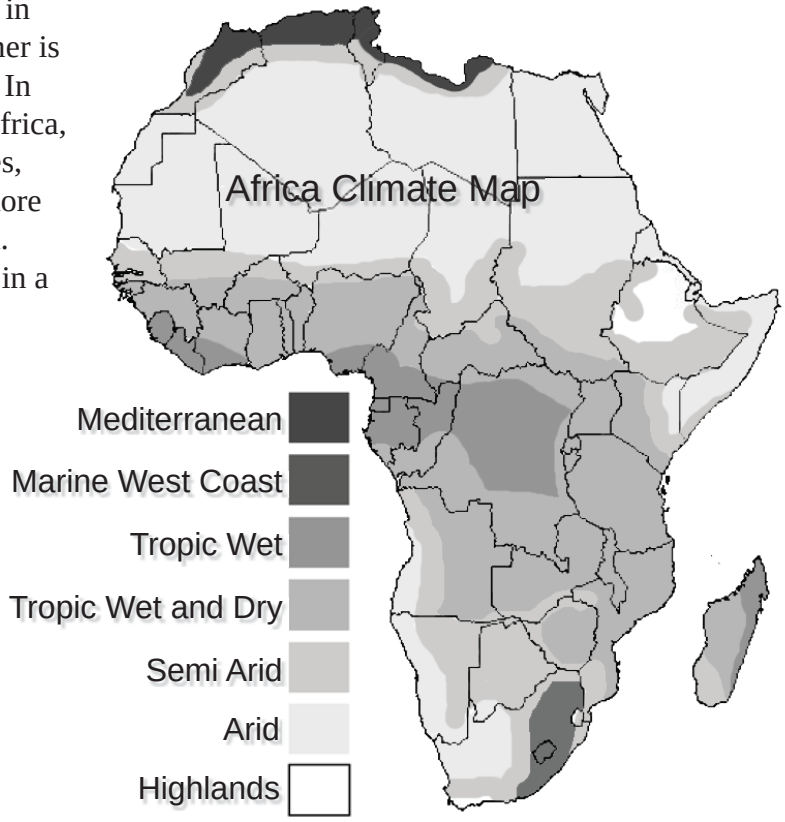
South of the Equator, trends are reversed. Rainy seasons arrive in the spring, often between January and March. Seasons are also reversed, as is the case in the Southern Hemisphere. In Angola, for instance, the hot season occurs between October and April, while from May to September, temperatures are cooler. In general, coastal areas are more mild from season to season, while lands farther inland have slightly more defined seasons. Rainfall can average well over sixty inches per year, though it is generally less in the far north and far south. ***Squalls*** frequent the area seasonally, as well, usually accompanied by intense thunderstorms.

At the Equator lies the largest tropical rainforest on Earth outside the Amazon. Temperatures usually stay in the 70s or 80s year-round; higher elevations have lower temperatures, while some places often reach 100°F. On the northern coast of Gabon, some areas receive 150 inches of rain each year, allowing for all kinds of lush vegetation. This zone touches eight countries: Nigeria, Cameroon, Equatorial Guinea, São Tomé and Príncipe, Gabon, Congo, the Central African Republic, and the DROC.

In Ethiopia, highland climates are prevalent, characterized by intense winds, cold temperatures (especially at the highest peaks), and seasonal change. In Angola, Namibia, Botswana, Zimbabwe, Zambia, Mozambique, and South Africa, much of the land is semiarid, while the Kalihari Desert on the Atlantic coast of South Africa and Namibia is quite dry. Eastern South Africa and Lesotho have a marine climate. Average

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

temperatures in June and July in Lesotho are near 50°F. Summer is the wet season in this region. In extreme southeastern South Africa, a humid, subtropical zone rises, as temperatures are slightly more distinct from season to season. Cape Town, South Africa lies in a Mediterranean zone.



LIFE PRINCIPLE

Rain is seldom convenient for vacation, but is always essential for agriculture.

-Anonymous

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

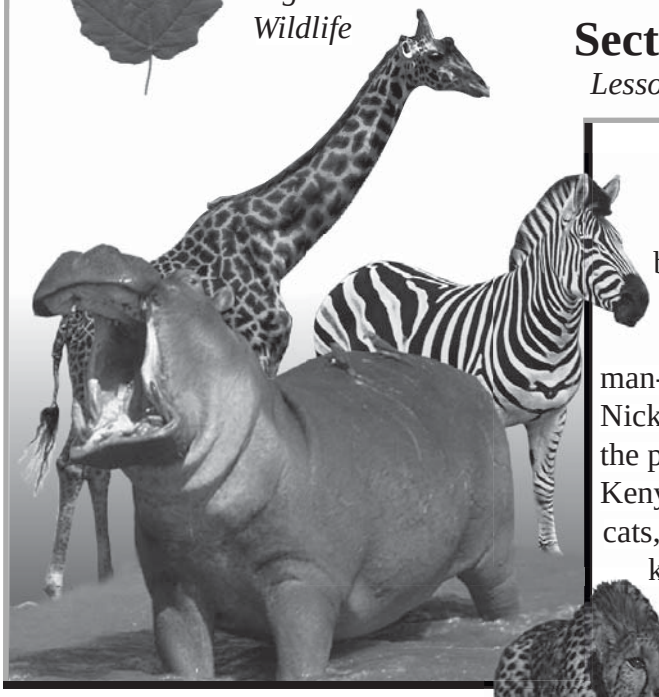
World Geography

Chapter 4

Lesson 5
Vegetation and Wildlife

Section 1
Lessons 1-5

Vegetation and Wildlife of Africa



In 1996, Paramount Pictures released *The Ghost and the Darkness*. Directed by Stephen Hopkins, the true story centered on the construction of a railroad through Kenya in the late 19th century and the two man-eating lions that plagued its completion. Nicknamed "the Ghost" and "the Darkness," the pair of lions came from the Tsavo region of Kenya, known for its aggressive variety of jungle cats, and these particular lions were said to have killed 135 people during their reign of terror in 1898. The film chronicles the horror that seized the camp as the lions struck day and night, breaching fences and dragging the native Kenyan construction workers out into the ***savanna***, often devouring them there and leaving grisly carcasses behind. As the death toll mounted, the railroad's principal financier, Sir Robert Beaumont, grew increasingly aggravated at what he saw as ***ineptitude*** to deal with the problem, and he hired hunter Charles Remington to kill the lions. Tragically, even the famed Remington was unable to dispatch both assailants—he killed one, but the other returned the favor and mauled Remington. Beaumont and his team were left fighting the remaining lion on their own, and their odds were little better than those of the native Massai workers who had been so helpless to protect themselves.

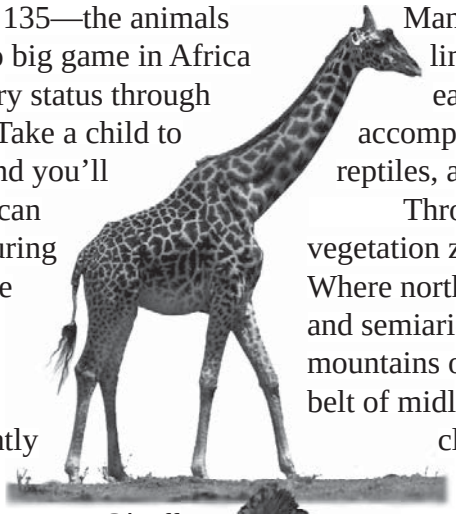
Without revealing the end of the movie, today both lions from the real-life story are on display at Chicago's Field Museum of Natural History. Although some modern research disputes the initial claimed body count—analysis has led modern scientists to believe the lions killed only a

VOCABULARY

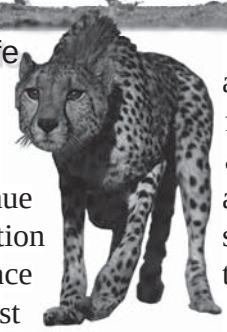
Savanna: tropical grassland characterized by somewhat sparse trees
Ineptitude: incompetence, failure
Corroborate: prove; verify
Halophyte: plant that tolerates an environment with high salt content
Stampede: wild, headlong rush of animals, often caused by fright or panic
Poaching: illegal hunting or fishing, either on someone else's property or in violation of conservation laws

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

few dozen people, not 135—the animals stand as a testimony to big game in Africa and their near legendary status through the rest of the world. Take a child to any zoo in America, and you'll ***corroborate*** this. African mammal exhibits featuring animals found nowhere else in the world, such as giraffes, elephants, hippopotami, and cheetahs, are consistently among the most popular attractions because of the animals' size and their lack of existence outside the continent. To a lesser extent, vegetation patterns somewhat continue this reality. The savanna is a vegetation region rarely associated with any place outside of Africa. Many people's first concept of a jungle also comes from the Dark Continent, as Africa is often dubbed, in part due to the fact that it has the second largest area of tropical rainforest in the world (behind the Amazon).

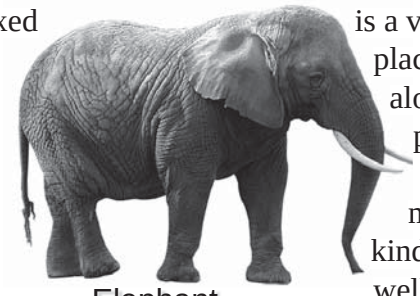


Giraffe



Cheetah

Africa's vegetation zones—like its climate, like its terrain—are somewhat simple to map. Most of the continent can be designated either desert, tropical savanna, rainforest, or scrubland; and like its climate zones, sometimes the Equator serves as a sort of mirror, with zones in the north recurring along the same latitudes in the south. Several other areas of vegetation do exist, most notably a mixed forest region in the Great Rift Valley. The Atlas Mountains have their own vegetation unique to the area, and in South Africa a large section of grassland lies near (and in) Lesotho.



Elephant

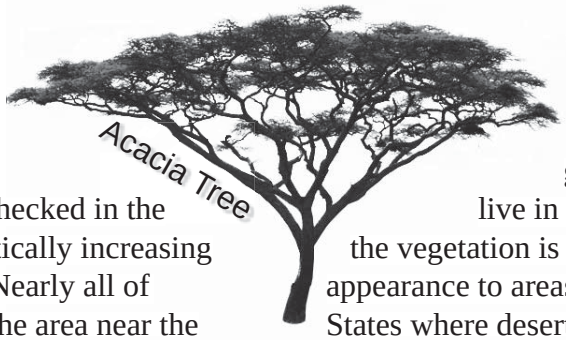
Many of Africa's wildlife species are limited to certain areas as well, so each vegetation region comes with accompanying mammals, birds, fish, reptiles, and other animals.

Throughout much of the continent, vegetation zones mirror climate zones. Where northern Africa has a Mediterranean and semiarid climate, mainly in the Atlas mountains of the Mediterranean Sahara, a belt of midlatitude scrubland exists. The climate is somewhat dry here, but the sea provides moisture enough to support long grasses and shrubs. Atlantic cedar trees flourish here at moderate elevations alongside some palms near the coast and briers. In the higher peaks, soil can count on enough humidity to support trees, and a coniferous forest section exists. Surprisingly few animals exist in the mountains. Those that live here are typical of mountain habitats: eagles, other birds, foxes. Some wild boars live in the mountains, while the threatened Barbary apes exist in small patches of territory. This entire region stretches along the Mediterranean coast from southern Morocco to the Libya–Egypt border.

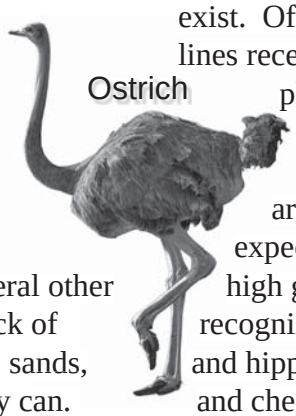
In the Sahara desert, little life exists. From the edge of the mountains down through central Mali and Chad is desert, with the expected vegetation. ***Halophytes*** live in saltier places (the entire Sahara is a very salty desert, but some places are saltier than others) along with other salt-tolerant plants. African species of cacti live in areas that receive more precipitation, and some kinds of grasses thrive here as well. Paradoxically, the northern

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

Sahara is a breeding ground for some plants that are found virtually nowhere else in the world. Like European nations across the sea, Mediterranean Africa is the world's premiere olive-producing region, and some olive trees even grow in the desert itself. Along riverbeds, creeks, or in oases, date trees are important—especially in Algeria and Tunisia. Other plants include cypress, oleander, acacia, and thyme. Despite the apparent diversity, however, these plants do not simply reproduce unchecked in the desert sands, systematically increasing in number and area. Nearly all of them are confined to the area near the Mediterranean or in the exceedingly few ponds and oases in the northern Sahara. It is difficult to impress how barren most of the Sahara is. For hundreds of thousands of square miles, vegetation simply does not exist at all—only miles of sand and rock exist, beaten by high desert winds and the Sahara's extreme heat.


Acacia Tree

A few animals live in the desert of northern Africa. Birds in this area include desert owls, eagles, ostriches, ravens, and several other species; some of them beat the lack of moisture by flying high above the sands, scrounging water from where they can. On land, baboons and desert hedgehogs live, competing for water and shade with hyenas, jackals, and smaller animals like foxes and hares. Some desert toads live here, and lizards and gerbils also make their homes in the sand. In rockier areas, caves and rock outcroppings provide an important shelter for many species.


Ostrich

South of the Sahara, savanna dominates the landscape from central Mali and Chad down to South Africa. The vegetation zone is interrupted in many places, but forms a sort of unifying element to the bulk of Africa. The portion of Africa below the Sahara Desert is often referred to as sub-Saharan Africa, which reflects the vast differences between it and the desert to the north. In the Sahel, conditions are theoretically wet enough to support grasses, trees, and scrubs. Acacia trees thrive, and gum trees and mimosas live in many areas. Much of the vegetation is somewhat similar in appearance to areas of the western United States where desert meets scrublands. Trees are generally short and gnarly, while woody bushes and shoots of leaves are very common. But the Sahel's vegetation fluctuates both by latitude and by year. In the north, closer to the desert, few trees exist. Often, a dry season means that tree lines recede deeper into Africa, so that plants that spring up for a few years may die out if rains fail to come one season. But parts of the Sahel are more typical of what one would expect in Africa: wide open plains, high grass. Wildlife becomes more recognizably African here too. Giraffes and hippos live where water can be found, and cheetahs roam the plains in places.

VOCABULARY

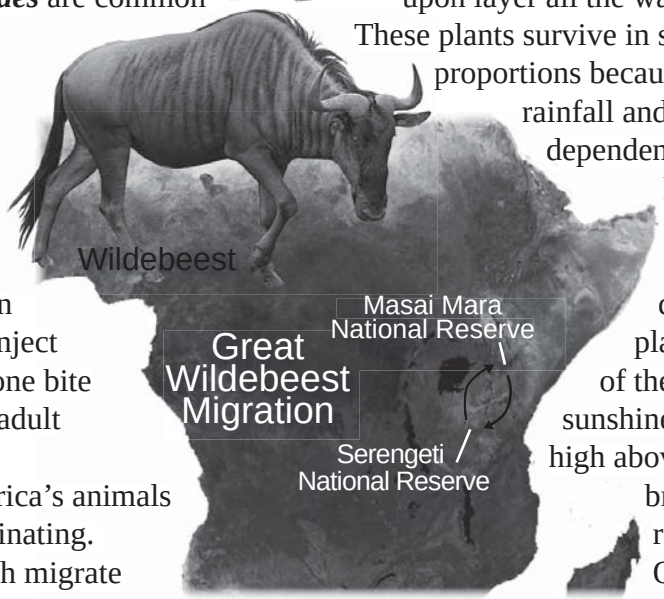
Malaria: infectious disease caused by parasites and common throughout Africa

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

The African savanna is largely dominated by the acacia tree. The tree is distinctive, with a short trunk and a wide, brimming canopy. Adapted to survive in the warm, alternately wet and dry region, the tree is valuable for its gum, bark, seeds, fragrance, and other aspects, all of which are used in various applications. Many grasses have natural defenses against animal grazing, such as bitter taste or mild toxins that make animals sick. But the more fascinating species here are animals. Large carnivores live in the African savanna, from lions to cheetahs to hyenas to jackals. Hippos, often thought of as tame and meek, are actually some of Africa's most notoriously fierce creatures. They are responsible for more human deaths than lions because of their ill temperament, and an angry 1,000-pound hippo can be a terrifying thing to most other dangerous animals. Zebras, giraffes, and goats roam savanna grasslands, while massive wildebeest ***stampedes*** are common throughout much of Africa. Other predators exist, as well. The black mamba snake, one of Africa's most feared species, can grow up to fourteen feet long and can inject enough venom in one bite to kill twenty-five adult humans.


Hippopotamus


Zebra



Some of Africa's animals are downright fascinating. White storks, which migrate from Europe to southern Africa in winter, can form flocks of more than 25 miles long during their flights across the continent. In the Serengeti, wildebeest, gazelles, zebras, and other animals migrate in numbers of far more than one million in an annual event called the Great Migration. Stampedes during these migrations, sometimes sparked by the presence of a predator like a cheetah, can reach speeds up to forty miles per hour. Predators know that the only prey they will catch during these stampedes are those animals that fall behind—the power of these large creatures running at full speed is so great that they would trample and crush an enemy in seconds. Elephants can wander hundreds of miles in search of water, their size and thick hides protecting them from lions and other carnivores.

In the rainforests of western and central Africa, plant and animal life is more diverse and far denser than on the savanna. Thousands upon thousands of species of grasses, bushes, brush, leafy shoots, shrubs, vines, and trees exist, building layer upon layer all the way to the canopy. These plants survive in such dense proportions because of the lavish rainfall and the mutually dependent relationship they have upon one another. Shade, for instance, largely determines where plants grow. Some of the tallest trees enjoy sunshine, so they stretch high above other trees to break through the rainforest's canopy. Other trees tolerate

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

shade better, so they are content to settle under the roofs of these tall trees, protected from the sun by the thick growth overhead. On the wildlife side, some savanna animals live in the rainforest, as well—some elephants enjoy the wetter conditions here—but many unique animals exist. Gorillas, monkeys, chimpanzees, lizards, tree frogs, and an abundance of freshwater fish live among the vegetation, many of which are rarely seen because their habitats are so remote. Insects abound, comprising more species than any other kind of creature. The driver (or safari) ant forms huge raiding parties of up to fifty million, swarming over huge tracts of land and mercilessly attacking prey with their powerful jaws.

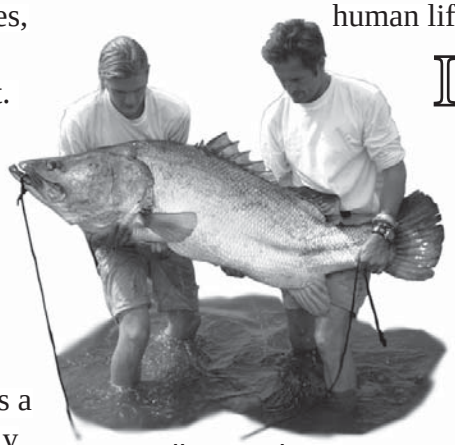

Gorilla

In the Ethiopian Highlands, and in neighboring countries in the Great Rift Valley, many typical African mammals and some mountain species, like lynxes and wolves, make their homes. Some of these are rare, as their habitats have been encroached upon for agricultural interests. Large birds of prey soar above high mountain passes, scouring the ground for food. In Lake Victoria and other African Great Lakes, perch, tilapia, and many species of plankton exist. The massive Nile perch, which can grow to several feet long, was introduced into Lake Victoria in the 1950s, and since has had a devastating impact on other species. The fish is a predator and has radically lowered other fish species, driving many to the brink of extinction. Heavy fishing for the perch, which makes an impressive trophy, has assuaged some of the burden it has caused to the ecosystem.


Lion

One of the greatest menaces to land animals here has been ***poaching***, which has dramatically lowered population of trophy game and other large species.

Other plants and animals live throughout Africa. In South Africa, the buffalo and the rhinoceros are large land animals, many of which are protected in nature reserves. In spite of the existence of dangerous animals like the lion and hippopotamus, the most dangerous animal in Africa by far is the mosquito. The tiny insect, which lives throughout most of the world, can carry the parasite causing ***malaria***, which it injects into victims by biting them. Hundreds of millions of cases of the deadly disease are reported each year and one to three million people die, most of whom live in sub-Saharan Africa. The presence of malaria is a frightening issue at present, and it has taken an enormous toll on both the financial and economic development of Africa and human life.


Nile Perch

Life Principle

Life is fleeting as the summer's grass. Make the most of it while you can.

- The Venerable Bede,
7th/8th century Anglo-Saxon monk and scholar

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

World Geography

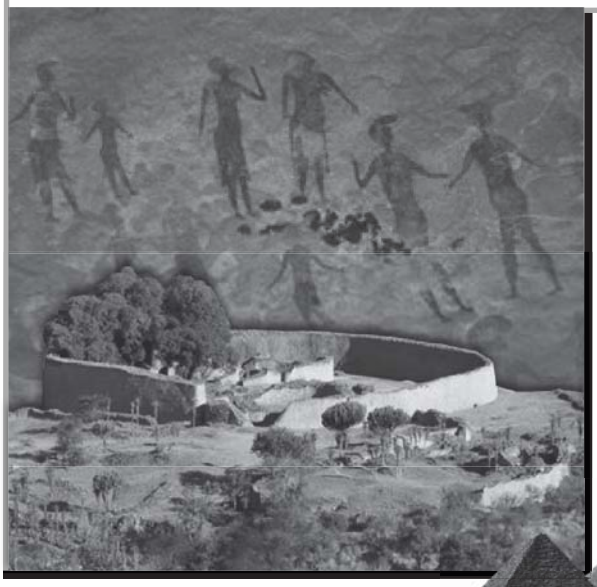
Chapter 4



Lesson 6
Famous Events and Sites

Section 2
Lessons 6-10





By any measuring stick, the Egyptian pyramids are a fascinating study, one that thousands of years after their construction is still shrouded in mystery. About 138 of these unusual structures exist today, most of which were designed as tombs for Egyptian ***pharaohs*** and other royalty. Anthropologists have concluded that the era of pyramid-building lasted for nearly a thousand years, from about 2,600 to 1,800 BC. The most famous pyramids, those at Giza, lie just outside Cairo and are thought to have been built perhaps between 2,600 and 2,500 BC. Though the massive mausoleums are certainly curious, many people do not grasp their sheer size. The Pyramid of Cheops, part of the trio of pyramids at Giza, was the tallest building in the world for nearly four thousand years, not surpassed until England's Lincoln Cathedral was completed in 1311; and today, the pyramids are still among the largest structures ever built. Beyond all this, an abundance of theories on how the pyramids were even constructed has not closed the debate. Many historians believe that the Egyptians used ramps to drag the massive stone blocks to higher regions of the pyramid. Given the structures' size, however, this cannot tell the whole story; consequently, other theories are proposed. The matter of who built the tombs is another question entirely, and one that is oft debated as well. Ancient Greeks believed that the Egyptians used slave labor—some have supposed this could be the Jews during their period of captivity, but the pyramids predate Jewish enslavement in Egypt. More recent evidence has suggested that perhaps



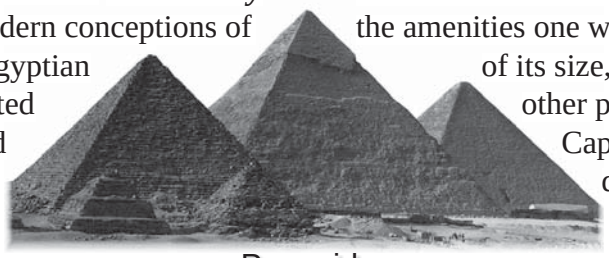
VOCABULARY

Pharaoh: ancient Egyptian ruler
Inextricably: tightly related; essential
Mythology: body of stories from a particular culture, often pertaining to religion
Safari: overland hunting journey in Africa
Theory of evolution: idea that life on Earth evolved by chance over millions of years from nonliving matter into advanced life forms

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

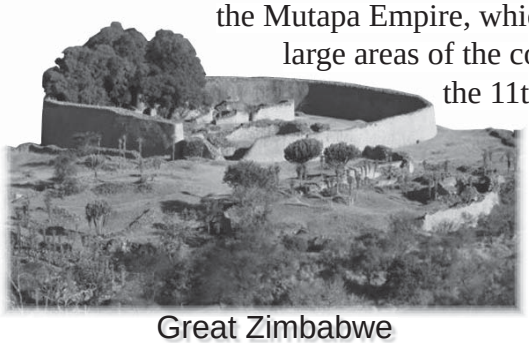
Egyptians were hired, living in camps of thousands of workers at the base of the pyramids.

The Egyptian pyramids are one of the best-known attractions in Egypt, and in fact in all of Africa. Located throughout the Sahara Desert, chiefly along the Nile, they are a symbol of Egypt's colossal ancient culture, one that is ***inextricably*** entangled with modern conceptions of Africa. Ancient Egyptian culture is represented across subjects and disciplines, from the ***mythology*** associated with its gods to the Biblical narrative of the Jewish people and more. It has spawned films from Charlton Heston's *The Ten Commandments* to more recent offerings like *The Prince of Egypt*, the *Mummy* trilogy, and *Night at the Museum*. The pyramids that the culture built are representative of most of Africa, then, in that they are tightly wound up with the history surrounding them.



Pyramids

Although the pyramids may be among the most impressive African sites, a city on the other side of the continent takes the prize as the most visited place. Cape Town, South Africa, the country's second largest city and nearly Africa's southernmost point, is the most popular tourist attraction. This city garners tourist attention for a multitude of reasons. It is a large city by area as well as population, perched where the mountains of Cape Peninsula mingle with the sea. Elevations in the city range from sea level to nearly a mile high, providing innumerable outdoor options, from hiking and backpacking in the hills to sunbathing and surfing on the picturesque beaches. Like other cities in Mediterranean zones, the climate is mild, with highs ranging from the mid-60s from June through August to the low 80s in February. For the more culturally inclined, the Dutch style of architecture colors Cape Town's many historic streets. The city also boasts many of the amenities one would expect from a city of its size, such as an orchestra and other performing arts groups. Cape Town also holds the distinction of lying at the mixing point of the Atlantic and Indian Oceans, and some travelers stop at the city just to say they've been there.

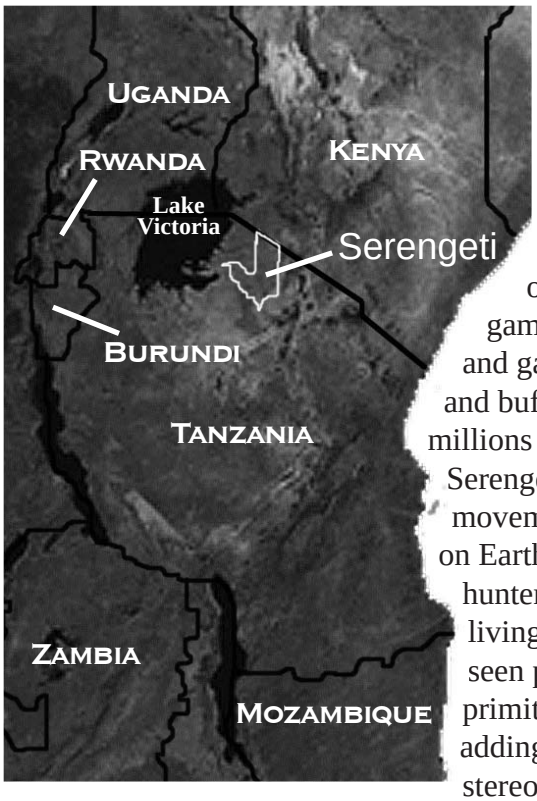


Great Zimbabwe

In unstable and war-torn Zimbabwe, a haven of calm exists at the Great Zimbabwe. In the southeastern part of the country near Masvingo, a collection of ruins dating back to the 11th century covers several square miles of land. The ruins are all that remains of a town that was part of the Mutapa Empire, which spread across large areas of the continent from the 11th through 14th centuries. The buildings, which served uses from housing to trading to worship, are unique in that they are made entirely of stone without mortar. Their construction and longevity was a testament to the Mutapas' engineering prowess. It is believed that the Mutapa people conducted an extensive trade network with faraway nations and were likely to have mined gold. The city at the Great Zimbabwe, which many anthropologists believe housed around

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

20,000 people, may have been a pivotal point along these trade routes. The site is so important to Zimbabwe's history that the country took its name from the site, whose name roughly means "the great house of stone boulders."



While still certainly historical in nature, some of Africa's most cherished places have to do with its landscape or wildlife. One of the enduring stereotypical images of Africa is something straight out of *The Lion King*—vast plains, large herds of wildebeests and zebras, with little sign of human life for miles. Film and television has popularized the idea of the ***safari*** so much that some zoos in the West even adopt elements of it in their African exhibits and displays, sending visitors on train rides past elephants, lions, and chimpanzees, with khaki-sporting tour guides narrating the journey. While perhaps some parts of this image are misleading—for humans do live all throughout Africa, and alongside untamed nature lie polluted and economically depressed cities—the stereotype has survived because of places like the Serengeti.

The Serengeti is a region in northwest Tanzania and southwest Kenya, occupying 11,600 square miles of pristine, unspoiled plains. In spite of its location just east of the densely populated Lake Victoria, the Serengeti counts few humans among its many residents. The area is home to many of Africa's largest game, including zebras and gazelles, wildebeests, and buffaloes. Twice a year, millions of animals cross the Serengeti in the largest mass movement of land animals on Earth. Native Massai hunters, an indigenous group living in the area, are often seen pursuing game using primitive hunting methods, adding to the place's stereotypically African aura. Tourists, particularly those from overseas, frequent the Serengeti National Park and the Massai Mara National Reserve to watch these spectacles of nature.


Mount Kilimanjaro

Several other natural wonders are high on many travelers' lists. Less than 200 miles from Serengeti National Park, Mt. Kilimanjaro attracts mountaineers and adventurers seeking to conquer its slopes. The highest mountain peak in Africa, Kilimanjaro is actually relatively easy to climb: because it is a volcano, its grades are shallower than those of most typical mountains. High up on the sides, Kilimanjaro rewards its brave climbers with dramatic views of the surrounding plain. Farther southwest on the continent, Victoria Falls is said to possibly be the most beautiful waterfall in the world. The massive curtain of

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

water spilling from the Zambezi River is one of the most popular locations for visitors, putting to shame even the most impressive North American waterfalls. Just off the coast of Tanzania, the island of Zanzibar draws large numbers of tourists seeking vacations in the exotic waters of the Indian Ocean. The Portuguese history on the island, coupled with large and clean beaches, has propelled tourism near the top of its most important economic activities. On Africa's west coast, the Canary Islands provide the same recreational possibilities but save Americans hours of flight time. The islands are actually a territory of Spain, but lie just west of Morocco in the Atlantic Ocean.



Beach on Zanzibar Island

Like the pyramids in Egypt, some of Africa's important sites have archaeological value. In Algeria, cave art at Tassili n'Ajjer transports viewers back thousands of years. Wall drawings and paintings in this striking region of desert depict animal hunts, climate changes, and other prehistoric events from the nomads who lived there thousands of years ago. The art's exact date is unknown, but researchers studying them generally agree that the oldest images could be more than 6,000 years old—a dizzying glimpse into the distant past. In Ethiopia, archaeologists have discovered fossils of creatures evolutionists claim were the predecessors to modern humans. In the ***theory of evolution***, Northern Africa is generally considered to be the breeding ground for the earliest human beings, who evolved from apelike species millions of years ago. The theory, however, has been unable to resolve major doubts and inconsistencies, and many scientists of both religious and nonreligious persuasions do not subscribe to it. The specimens found in Ethiopia—all of which have been fragmented and incomplete—are actually entirely different species from eons ago that have either adapted in small ways over the centuries or simply gone extinct. In any case, however, the archaeological discoveries in the region are significant for their age.



Cave Painting

Life Principle

Let us have faith that Right makes Might, and in that faith let us to the end dare to do our duty as we understand it.

- Abraham Lincoln

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

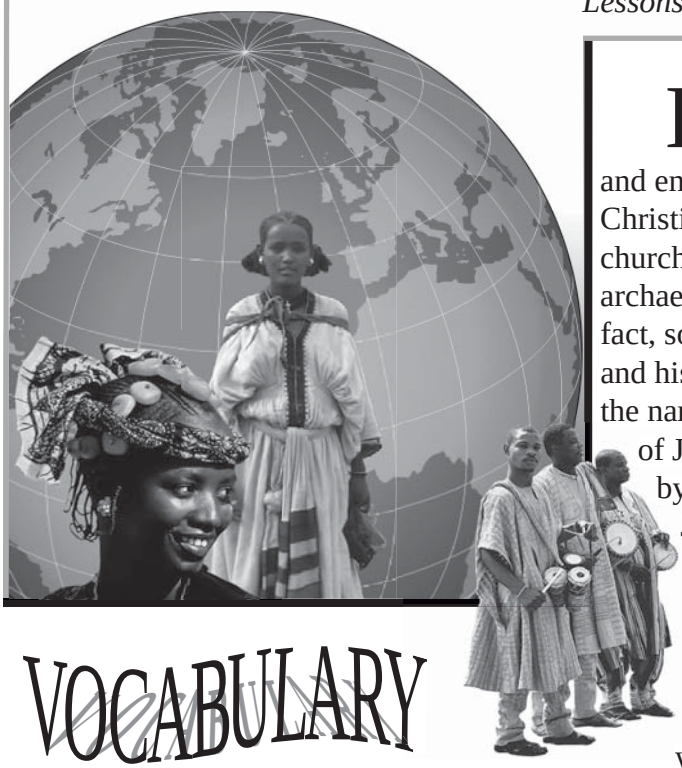
World Geography

Chapter 4

Lesson 7
Races and Ethnicities

Section 2
Lessons 6-10

Races and Ethnicities of Africa



In the Bible, the Old Testament book of Genesis documents the Israelites' growth and enslavement in Egypt. The story, which both Christians and Jews learn from an early age in church and at home, is corroborated with enough archaeological evidence to confirm it as verifiable fact, so that even nonreligious anthropologists and historians do not dispute it. According to the narrative, Joseph, one of the founding fathers of Judaism, was sold into slavery in Egypt by his brothers, who despised the fact that Joseph was his father's favorite. Joseph worked hard for his master, but was falsely accused of a crime and thrown in prison. For two years he was kept in prison, but eventually he won his freedom for correctly interpreting the pharaoh's dream. Joseph was promoted to the second highest post in Egypt. Some years later, when famine had struck and most of the region was starving, Egypt was the only place that had stockpiled enough to survive, and Joseph's brothers came to Egypt seeking food. Joseph graciously revealed his identity to them and welcomed them. His family, along with much of Israel, moved to Egypt, where they multiplied quickly. After the famine, however, a new pharaoh began to worry that the large populations of Hebrews would enable them to mount an uprising, and he had the Jewish nation enslaved. The people remained enslaved through several successive pharaohs—more than 400 years—until Moses arrived to lead the Hebrews to freedom in what is known as the Exodus.

While scientists are unsure of the exact period in which the Jews lived in Egypt, most researchers set the date

VOCABULARY

Tribe: a social or governmental division of people, typically primitive or preliterate
Coalesce: blend; mix
Pygmy: member of tribes throughout Africa or Asia known for their unusually short height
Imperialism: policy of extending political rule over foreign territory
Apartheid: policy of racial segregation in British South Africa after World War II

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

around the 15th or 16th century BC. The period of captivity represented an alien people group living in Africa, which, ironically, captures the story of Africa's demographics quite accurately. Like most areas of the world, Africa's indigenous people account for only a small part of the continent's human history. While some ***tribes*** do exist that have called Africa home for thousands of years, large populations are comprised of Europeans, Asians, Middle Easterners—even Africans from the other side of the continent. To grasp the intricacies of Africa's ethnic makeup, a brief history lesson is extremely helpful.

One of the largest ethnic groups in Africa today is the Egyptians, and it is also the oldest about which much is known. The Egyptian nation was like the Mayas in Central America in that it was remarkably long-lived, originating around 3100 BC and lasting until Rome took it over in 31 BC. Because of the civilization's location along the Nile in Eastern Egypt, it saw frequent trade and other traffic, so genetically the Egyptian people were influenced by both deeper African and Middle Eastern traits. The culture's heyday existed in stages and culminated between the 16th and 11th centuries BC. After this, it deteriorated and eventually fell to Persian invaders in the 6th century BC. After Persian rule, Egypt never regained its previous stature and, afterwards, became a province of Rome and then an Islamic hotbed. The Muslim takeover, in the 6th century AD, brought more Arabian influence to Egypt, and the 80 million modern Egyptians are largely considered Arabs.

At the same time the Egyptian culture was flourishing, Phoenicians began to colonize Libya, and Berbers set up in northwestern Africa, in Morocco and Algeria. Both these groups were very genetically diverse, incorporating influences from sub-Saharan Africa, Arabian states, Europe, and Greek culture. Some scholars speculate the Strait of Gibraltar may have been narrower around 1000 BC because sea level may have been lower. The stone's throw between Europe and Africa may have enabled easy travel between the two. During cooler and wetter phases, the Sahara may have been more navigable, as well, allowing for intermixing with native tribes. Eventual Roman occupation brought considerable Italian and European influence to the area. Berbers still exert an inordinate influence on local culture, and number 65 million, mainly in Morocco.


Hausa Woman

As in the Americas, most indigenous African peoples were organized into tribes. In the Sahel, the most important of these tribes is, perhaps, the Hausa, who have about 30 million people scattered from Côte d'Ivoire to Sudan. The Hausa, like other West African groups, probably originated farther east. They dominate in Nigeria and Niger, where they make up majorities of the population. The Yoruba people, approximately 30 million in number as well, live in western Nigeria and throughout Western Africa. These people probably came from present-day Niger (where moderate numbers still reside) and ***coalesced*** based on their shared language and religion. The Igbos, who may have come from East Africa near the Great Lakes,

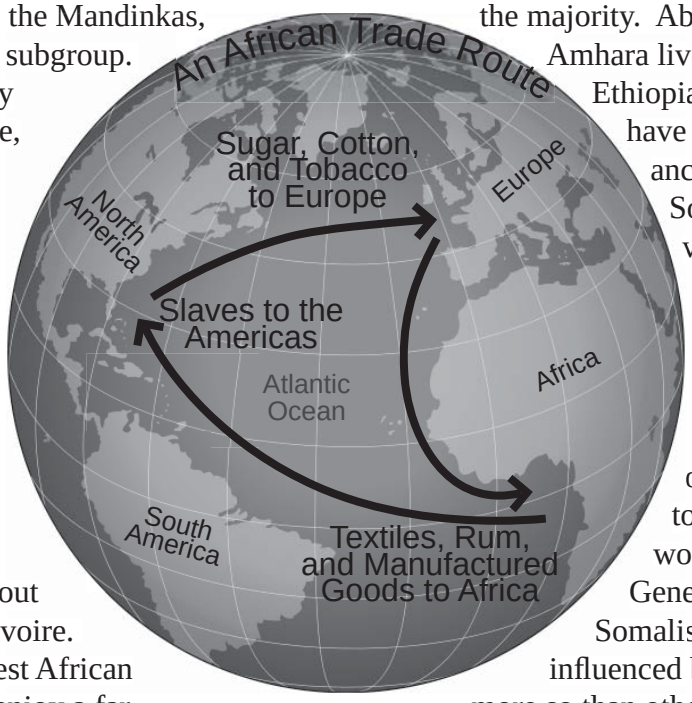
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

also have considerable influence in Nigeria. Indeed, Nigeria is perhaps a microcosm of the entire region because of its location at the convergence of West Africa and the Sahel and its large population. Today, about 30 million Igbos reside throughout Nigeria and Cameroon.



Yoruba Men

In West Africa, various groups dominate. Traced back far enough, most West African groups migrated from Northern and Eastern Africa and the Middle East, where humanity likely has its origins. The Mandé people were probably among the first on the continent and definitely the first to establish large settlements in the west. At 27 million strong, they count about half the population of Mali and include the Mandinkas, the most prominent subgroup. Mandé inhabit every country on the bulge, fifteen in all. Fula peoples, who also claim about 27 million, live in the same region and are prevalent in Guinea, where they represent about 40% of the country. About 20 million Akan people live throughout Ghana and Côte d'Ivoire. Ironically, many West African ethnic groups now enjoy a far greater slice of the world, thanks to the Atlantic slave trade. In the 18th and 19th centuries, the Americas were developing as fledgling nations, and began to assert themselves politically and economically, often competing with traditional European powers. As countries searched for sources of labor, African tribes began selling neighboring peoples—or in some cases, their own—to European merchants, who brought textiles and rum to the continent. In turn, these slaves were imported to the Americas—largely to the Caribbean and Brazil, although most American countries used slaves at some point—in return for crops like sugar and tobacco. Today, descendants of the Igbo, Akan, and Yoruba live throughout the Caribbean Islands, the southern United States, and much of Central and South America.



In East Africa and farther south, tribes like the Amhara and Somalis are the majority. About 20 million Amhara live primarily in Ethiopia, where they have resided since ancient times. Somalis are virtually the only ethnic group in their native Somalia, where they number 9 million, over half their total population worldwide. Genetically, the Somalis have been influenced by easterners more so than other groups, because it lies directly south of the Arabian Peninsula on the Indian Ocean, and a mere 1,400 miles from India. Seafaring has

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

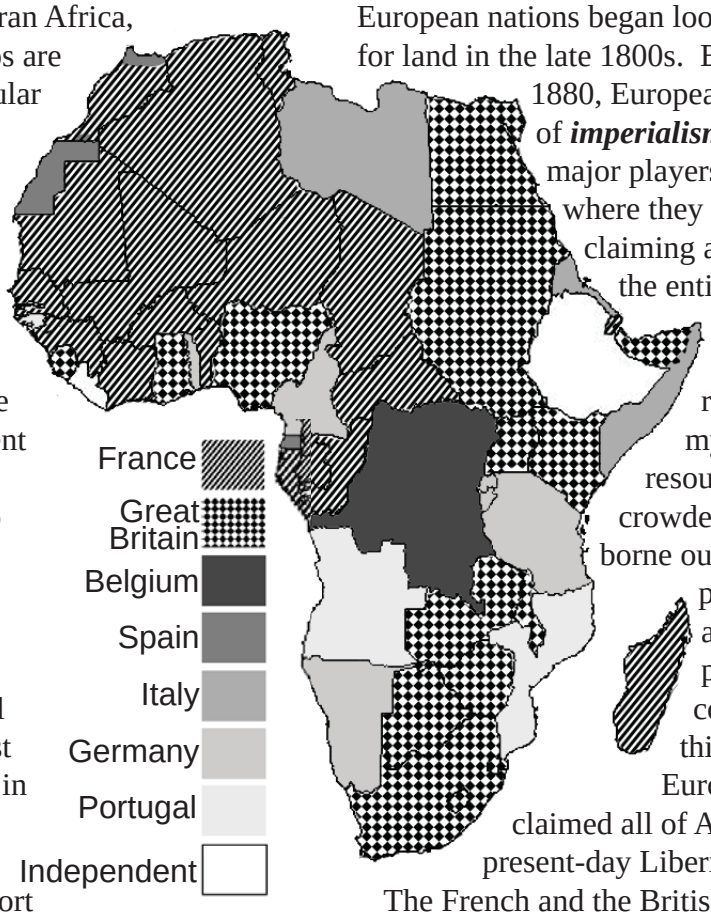
long been an important economic staple in Somalia, and traders have historically returned with Arabian and Eastern philosophies, along with bartered goods. Tigray and Tigrinya peoples are significant ethnic populations in Eritrea and a few adjacent countries. In West Africa, Arabian influence has been mitigated because the enormous Sahara Desert forms a natural barrier to travel. In Sudan and some other eastern countries, however, Arabian traits have trickled far down, carried south by extensive travel on the Nile. Since the 6th century, this influence has incorporated Islam, which now dominates the Sahel and everything north.


Tigrinay Woman

In sub-Saharan Africa, many ethnic groups are localized to particular countries rather than spread across several regions. The Buganda peoples of Uganda number 5.5 million in the country, but are virtually nonexistent elsewhere. In the DROC, the Kongo and a few other ethnic groups flourish. ***Pygmies*** can be found throughout Central Africa, their largest numbers probably in the DROC. These curious people are known for their short height and primitive ways. In Zimbabwe, the Shona people count for over 80% of the population, 13 million in all. Branches of the Kongo group, which exist throughout Congo and the DROC, also live in Angola alongside various Mbundu divisions.

Most of the ethnic groups in Central and Southern Africa belong to the Bantu family. This designation is actually a linguistic rather than an ethnic one, but because of the overlap between the two fields, ethnographers often consider Bantu to mark ethnicity, as well. The entire Bantu group includes hundreds of millions of Africans speaking hundreds of languages.

After successfully colonizing the Americas and subsequently losing the entire continent to independence movements, European nations began looking elsewhere for land in the late 1800s. Beginning around 1880, European doctrines of ***imperialism*** took the major players to Africa, where they rapidly began claiming and inhabiting the entire continent.

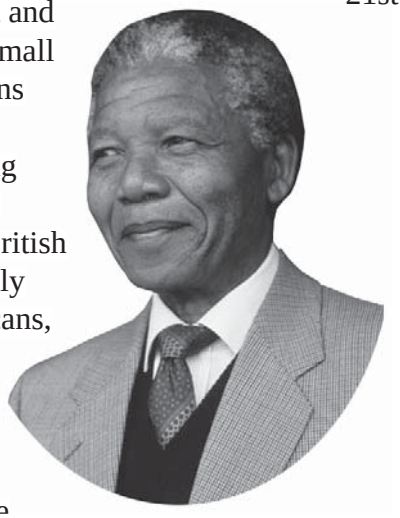


The reasons for this colonization race were myriad: natural resources, increasing crowdedness in Europe borne out by high populations, and national pride. Over the course of about thirty years, seven European countries claimed all of Africa except present-day Liberia and Ethiopia. The French and the British were the

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

victors in the scramble; France occupied much of West Africa and the Sahara, and Britain occupied large areas from Egypt to Kenya, and additionally Nigeria and much of Southern Africa. When World War I exploded, virtually the entire continent was claimed by one country or another, and European interests were quickly reallocated to the war. Over the 20th century, Europe gradually exited from Africa, leaving countries to govern themselves. Unfortunately, nations whose entire system of government was booted out by Europe during the colonization period had to start from scratch, and many governments have never achieved stability. Communists and Islamic thugs rose to power throughout Africa during the 1960s and currently terrorize large sections of Africa.

South Africa is perhaps the most dramatic story from this time period. Taken over by Britain at the turn of the 20th century, the country retained huge majorities of native Zulu tribes and others. It was instrumental during World Wars I and II to Britain, who benefitted from the thousands of South Africans who fought and flew for the Allied Powers. Small contingents of white Europeans gradually propagated in the country, eventually comprising about 20% of the population. Following World War I, the British government began systemically oppressing native South Africans, barring them from voting, holding good jobs or important positions in government, serving in the military, and other rights. The system was similar to the segregation laws that dominated throughout many Western countries around the same time and came to be known as ***apartheid***. Opposition from the four-fifths of South Africans who were black rose, and the most famous of activists was Nelson Mandela. Mandela was a political figure who crusaded against the oppressive system, and eventually earned a 27-year prison term for his commitment to equality of blacks. Mandela was released in 1990, and when South Africa finally regained its independence as a republic in 1994, he was elected its first president. Today, Mandela is a sort of legendary symbol of the apartheid era, and a respected voice for human rights all over the globe.



Nelson Mandela

Life Principle

The past is beyond our control,
but the future is ours to shape.

- Ronald E. Johnson, C. Ph. D.
21st century textbook publisher and
school superintendent

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

World Geography

Chapter 4



Lesson 8
Languages



Section 2
Lessons 6-10



Swahili is simultaneously the best-known native African language around the world and the most spoken one on the continent. Between 50 and 90 million Africans speak Swahili around the African Great Lakes, where it is the official language of three countries—Kenya, Uganda, and Tanzania. It is most often spoken as a second language because other languages, including English, are used in arenas like commerce and government. Like all languages, Swahili incorporates influences from other languages, most notably Arabic and a few from Europe. Like the Americas, many native languages have gone the way of the dinosaur in Africa, facing supplanting by the European languages that took over at the turn of the 20th century. But like the Americas, some native tongues are alive and healthy, a list of which Swahili sits proudly at the top.



In many respects, Africa is actually a completely different story than countries in the Western Hemisphere. When European colonizers came to the Americas, they stayed, and the subsequent civilizations that sprung up are politically, ethnically, religiously, and linguistically tied to Europe. Take, for example, the extent of Spanish or the rise of Roman Catholicism in Latin America, or that large majorities of the U.S. and Canada were settled by white Europeans. In Africa, Europeans moved in, but when World War I beckoned with problems at home, Europeans retreated and have largely left the continent alone since (with some

VOCABULARY

Click language: language in Africa and East Asia that utilizes abnormal sounds resembling clicks
Bastion: stronghold
Whistled language: language communicated by blowing air through the lips
Hieroglyphics: ancient system of writing based on pictorial characters
Syntax: the grammatical arrangement of words in sentences
Proliferate: multiply

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

obvious exceptions). Ethnically, Africans are still principally who they have always been, and much of their heritage, including language, has remained intact. Thus, while a map of official languages in Africa may reflect colonial claims during the scramble, often the official languages are little more than that: just official. In practice, many African countries host several more languages, many of which are local to certain tribes.

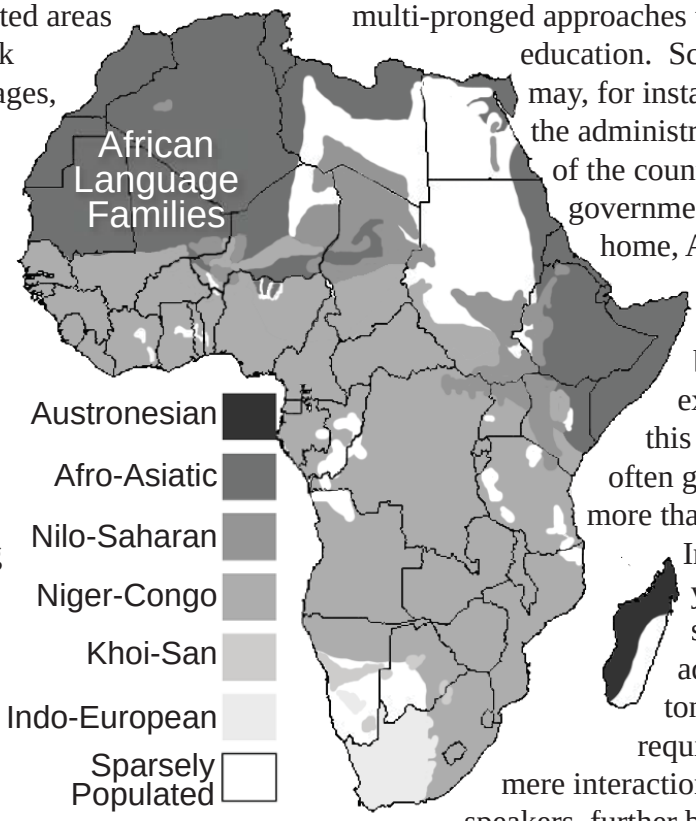
Official languages in Africa trace back to the period of European colonization and also have to do with Europe's far greater power and sway than Africa. European and American languages like English and French serve as international linguas francas, so Africa has perhaps strategically kept them to facilitate international communication. Briefly, Arabic dominates in the north, in every coastal country from Mauritania to Egypt. In the bulge, French is the official language of most countries, including Mali and Niger. The exceptions here are all English except for Guinea-Bissau, which is Portuguese. Cameroon, Chad, the Central African Republic, and Sudan all recognize two languages, while in the East, traditional African languages reign. French is the official language of the DROC and a few neighboring countries. Swahili shares its host countries with English, while Mozambique is Portuguese. English claims Zambia, Botswana, and Namibia, while half a dozen other southern nations have at least two official tongues.

More than 2,000 individual languages are spoken in Africa, far more than exist on any other continent. These hail from six different primary language families, massive supergroups that encompass many dozens or hundreds of languages. In the north and on the Horn of Africa, Afro-Asiatic languages rule, dominated by the Arabic language. Beneath this, most of the continent speaks languages from the Niger-Congo group, interspersed with Nilo-Saharan languages. Both these groups originated in Africa (hence their names, derived from African places). In South Central Africa, Khoisan languages

Official Language	Countries
Afrikaans	South Africa
Arabic	Mauritania, Western Sahara, Morocco, Algeria, Libya, Egypt, Tunisia, Chad, Sudan, Eritrea, Djibouti
French	Senegal, Guinea, Mali, Côte D'Ivoire, Togo, Benin, Burkina, Niger, Chad, Cameroon, Equatorial Guinea, Gabon, Central African Republic, Djibouti, Congo, DROC, Rwanda, Burundi, Madagascar
English	The Gambia, Sierra Leone, Liberia, Ghana, Nigeria, Cameroon, Sudan, Eritrea, Rwanda, Uganda, Kenya, Tanzania, Zambia, Botswana, Malawi, Zimbabwe, Madagascar, South Africa, Swaziland, Lesotho, Namibia
African Traditional	South Africa, Lesotho, Swaziland, Burundi, Ethiopia, Madagascar, Zimbabwe, Malawi, Rwanda, Eritrea, Somalia, Cent. African Rep.
Swahili	Uganda, Kenya, Tanzania
Portuguese	Guinea-Bissua, Angola, Mozambique
Spanish	Equatorial Guinea

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

occupy small areas and are notable as ***click languages***. In South Africa, about half the country speaks English, an Indo-European tongue. The populated areas of Madagascar speak Austronesian languages, which are prevalent throughout Indonesia. These designations' usefulness is limited, however. They serve to unify languages that arose from similar origins and provide insight on relationships among languages, but they do not reveal actual languages spoken or any minority languages in existence.



In the north, Arabic is the common tongue. Some countries, like Egypt, speak variations of Arabic (Egyptian Arabic), and others, like Morocco, speak classical versions of Arabic embodied in older literature. Many people living in these countries are fluent in other tongues, as well. In Morocco, sizable chunks of the populace speak French, while in Algeria about half the population knows Berber. Mauritania is also a ***bastion*** of Francophonic people, but perhaps more so by those who work closely with government than with ordinary, everyday citizens.

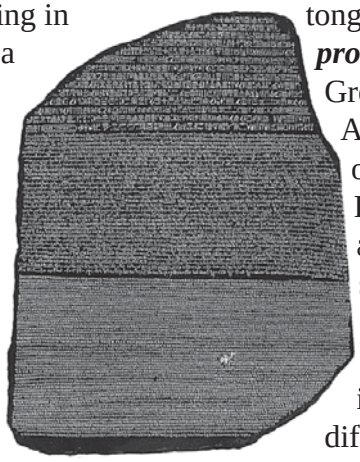
In Western Africa, tribal languages are more common. Mande tongues dominate throughout Mali, the largest of which is Bambara. In Niger, about 5.5 million people speak Hausa. Nearby countries use other native or ethnic languages like Akan, and Krio in Sierra Leone. Many of these countries employ multi-pronged approaches to linguistic education. Schoolchildren may, for instance, be taught in the administrative language of the country, while the government realizes that at home, African tongues like Yoruba and Akan will be used nearly exclusively. In this way, children often grow up knowing more than one language. In later school years, many students learn additional tongues through required courses or mere interaction with foreign speakers, further bolstering their multilingualism.

Some languages found throughout Africa are odd or primitive by modern standards. A few isolated groups still practice ***whistled languages***, which have historically been more common than they are today. These languages rely entirely on whistles of different tones and pitches to communicate, and are based on a spoken language. People who are good enough at interpreting the sounds can be astonishingly accurate in decoding their meanings, and whistlers have an uncanny ability to vary their tone and inflection of whistle to communicate different thoughts. In the past, pictograms were important to some tribes in conveying meaning. These word pictures are very similar to ancient

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

Egyptian ***hieroglyphics*** found scrawled in caves and on rocks, and some systems were very advanced and complex. (In the case of hieroglyphics, not until the discovery of the Rosetta Stone in 1799 did Westerners make any progress deciphering the shapes' meanings.)

Farther east, native African languages are less compromising in sharing. In the DROC, Lingala and Swahili are the dominant, infringed upon little by European languages. In Sudan, Arabic is the most spoken tongue and English is also important regionally, but Ethiopia has one official language, Amharic. Amharic, coupled with Oromo, make up about two-thirds of Ethiopia's population. Tanzania is an unintuitive collection of hundreds of different languages, most of which are spoken by relatively small numbers. Haya and Gogo are among the largest, along with Swahili, which is used in schools and in commerce. Kenya has 69 languages, and other countries close by are similar. In spite of the multitude of individual languages, many are related and share common words or ***syntax***, so fluency in more than one language is not as difficult as in many other parts of the world where multiple languages compete.


Rosetta Stone

Bantu is the largest division of its size in the Niger-Congo language family, with more than 500 individual tongues. Shona, spoken in Zimbabwe, is one of the better-known of the Bantu tongues. Other individual tongues ***proliferate*** throughout the southern Great Lakes and southeastern Africa. In Angola, about 40% of the population speak only Portuguese, with Kimbundu and Kikongo also counting significant populations. For this reason, Angola is somewhat of an island of European language in Africa. South Africa is difficult to pin down at all. Many people do speak English nonnatively, but languages like Zulu and Afrikaans are important as well. Many of South Africa's tongues blend traditional African words and sounds with Dutch and French influences.

One of the most curious observations about African languages is the overlap with ethnic groups. In the case of Hausa, Xhosa (spoken in South Africa), and others like them, the same name can apply to both a language and an ethnicity.

Life Principle

They always talk who never think.

- Matthew Prior
17th century English poet and diplomat

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

World Geography

Chapter 4

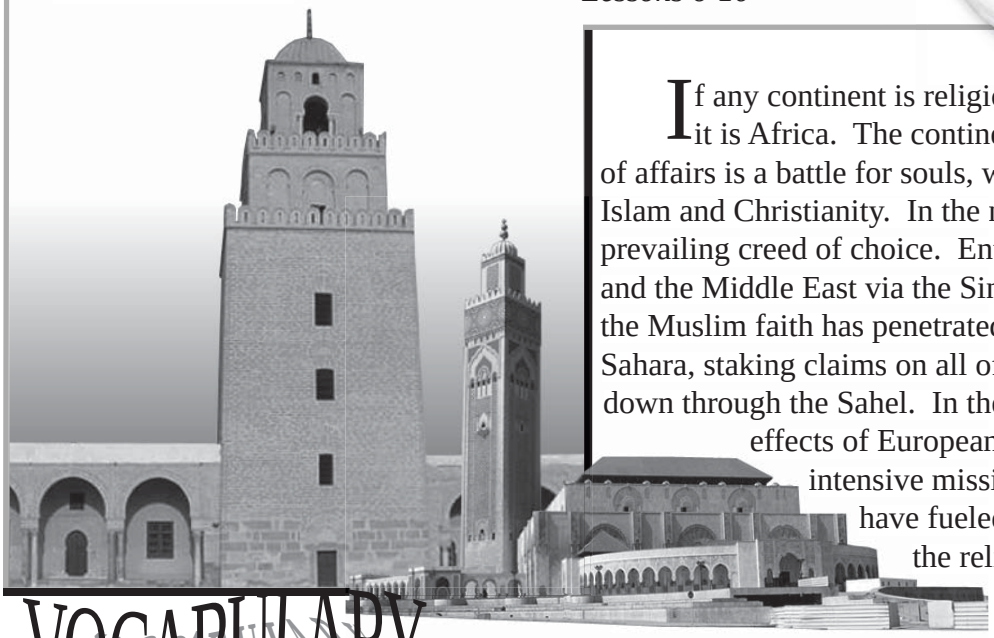


Lesson 9
Religions



Religions of Africa

Section 2
Lessons 6-10



If any continent is religiously ***dichotomous***, it is Africa. The continent's spiritual state of affairs is a battle for souls, waging between Islam and Christianity. In the north, Islam is the prevailing creed of choice. Entering from Arabia and the Middle East via the Sinai Peninsula, the Muslim faith has penetrated deep into the Sahara, staking claims on all of North Africa down through the Sahel. In the south, lingering effects of European colonization and intensive missionary activity have fueled Christianity as the religious mainstay, and it enjoys wide acceptance from the rainforest to the Cape of Good Hope. Perhaps the clash is appropriate on this continent at the intersection of the world—Christianity and Islam are the world's largest religions, and Africa is near the geographical capitals of both. Christianity's roots lie in Jerusalem, barely 60 miles from the edge of Egypt, while its largest branch its headquartered in Vatican City, less than 350 miles of Mediterranean Sea from Tunisia. Islam's holy city of Mecca is even closer, a mere 170 miles from Sudan. Blood is still being shed in central Africa as during the Crusades of the Middle Ages, which pitted the two faiths against each other; either one emerging as a religious victory on the continent looks unlikely, given that both religions are deeply ingrained into the people who live in the regions and are not apt to lose their grip on their territory. Sandwiched between the dominate religions is the age-old practice of witch craft in which tribal witch doctors still dominate local villages with vodoo rituals.

You will remember from Chapter 1 that an inverse

VOCABULARY

Dichotomous: of variations
Minaret: tall, slender tower of an Islamic mosque
Mosque: Muslim place of worship
Persecution: affliction, harassment, or punishment, usually for holding a particular religious belief or conviction
Ostracization: excluded from society, friendship, conversation, privilages, etc.
Universalist: belief aimed at merging incongruous religious beliefs; belief that all people will eventually be saved

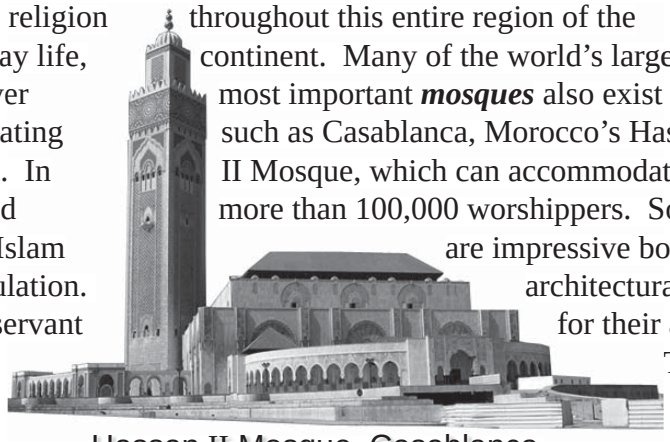
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

relationship exists between a nation's economic or financial health and the importance of religion in its life and culture. Generally, the more affluent a country or continent grows, the more it tends to become self-reliant, seeking meaning in its wealth rather than in faith or spirituality. Africa is a vivid evidence of this. The continent is uncontested as the poorest in the world, with huge populations surviving on mere pennies per day. Yet a 2008 Gallup poll revealed religion plays a larger factor in Africans' lives than anywhere else in the world, save Southeast Asia. Taken as a whole, the African continent's religious convictions are more important to its people than any other continent on Earth. Even more interestingly, this elevated role of religion in daily life seems to be mostly evenly spread among Islamic and Christian nations.



Northern Africa is Islamic. As is the case with most Muslim nations, religion is critical to the region's everyday life, governing everything from prayer rituals to local food menus, dictating national holidays and education. In most nations of North Africa and particularly those on the coast, Islam claims 90% or more of the population. Muslims are, largely, a very observant people, and the scope of their religion's impact on daily life would seem odd and borderline intrusive to most Westerners. One of the required observances is a five times-daily prayer to Allah while facing Mecca, Saudi Arabia, which Muslims regard as their holiest city. This custom is alive throughout most North African cities and towns, and the call to prayer rings through them each day. One of the indicators of a nation's bent toward traditional Islam is its usage of the hijab, the veil women wear to cover the head and face. A few countries, including Nigeria, Mauritania, and Libya, have higher prevalences of this, but most North African women merely dress in line with modest Islamic standards, refraining from wearing the headdress. In Tunisia, the veil has been banned since 1981. Radical Islamic groups, such as the Taliban in Afghanistan, attempt to force all women to wear veils.

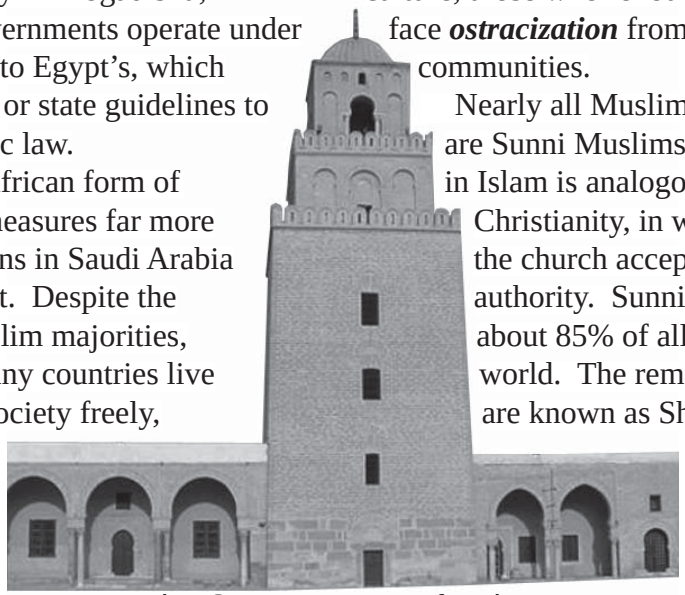
Minarets dot nearly every skyline throughout this entire region of the continent. Many of the world's largest and most important ***mosques*** also exist here, such as Casablanca, Morocco's Hassan II Mosque, which can accommodate more than 100,000 worshippers. Some are impressive both architecturally and for their age. The Great



Hassan II Mosque, Casablanca

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

Mosque of Uqba in Kairouan, Tunisia, dates to 670 and is one of the oldest mosques in the world. Major cities also boast elaborately designed mosque buildings, exemplified by Alexandria, Egypt's El-Mursi Abul Abbas Mosque or the Mosque of Islamic Solidarity in Mogadishu, Somalia. Most governments operate under approaches similar to Egypt's, which requires legislation or state guidelines to comply with Islamic law. Nevertheless, the African form of Islam is by many measures far more tolerant than versions in Saudi Arabia and the Middle East. Despite the overwhelming Muslim majorities, non-Muslims in many countries live and participate in society freely, with most of the same rights and privileges Muslims enjoy. In Egypt, Christmas was recently recognized as a holiday, and some non-Muslim businesspeople in the region have achieved considerable success. Relations between Muslims and Christians, who are the dominant minority religion, are generally good—Niger, for example, was recently cited by a Catholic authority as a model for interfaith cooperation. While this cooperation is encouraging, it does not indicate that North Africans are watering down their beliefs. Both Muslims and Christians hold strongly to their faiths. These people's religious commitments put to shame believers in Europe and North America, particularly in the case of Christians, who sometimes have to practice their faith secretly. This reality highlights the exception to the tolerance rule that characterizes much of Africa. In Algeria, many Christians follow their religion in an extensive underground network, because the government discourages all religions other than Islam. In some places, Christians and a tiny population of Jews, face large-scale ***persecution*** for their faiths. Because Islam is so ingrained in the culture, those who renounce the faith often face ***ostracization*** from their families and communities.



The Great Mosque of Uqba

Nearly all Muslims in North Africa are Sunni Muslims. The division in Islam is analogous to that in Christianity, in which branches of the church accept or reject papal authority. Sunni Muslims make up about 85% of all Muslims in the world. The remaining 15%, who are known as Shiites, objected to the passing of power following the death of founding prophet Muhammad in 632 AD. Shiites claimed that Islamic law required supreme religious authority be passed to a relative of Muhammad, in effect keeping power in the family. Sunnis disagreed, claiming there was no Islamic basis for this requirement, and so the faith rapidly fragmented following Muhammad's death. Today, most Shiites live in Iran, where it is the predominant and compulsory faith, and neighboring regions of Iraq, Azerbaijan, and Kuwait. In North Africa, Shia Islam has a few followers in Egypt and elsewhere, but large areas have virtually no Shiites at all.

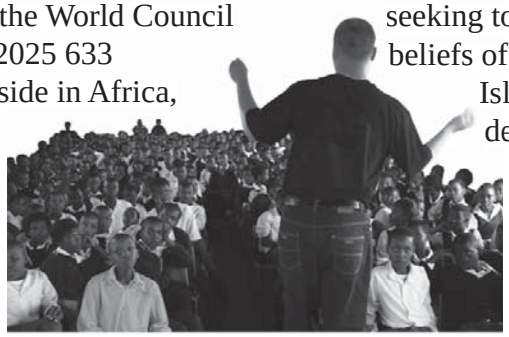
South of an east–west line that essentially bisects Nigeria, Christianity is the dominant faith. It encompasses most of Central and Southern Africa except for a strip on the Indian Ocean coast running from Somalia down through Mozambique,

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

in which Islam has penetrated far into the continent. As authentic Christianity is diminishing in its traditional stomping grounds of Europe and North America, it is expanding in central Africa. In 1900, less than 10 million Christians worshipped on the entire African continent. In 2000, Africa claimed nearly 400 million Christians, an annual growth rate of about 41%. The Christian surge was based on European colonization a hundred years ago by predominantly Christian nations. Whereas political upheavals were instrumental in establishing Christianity, widespread missionary activity has become the primary vehicle for Christianity's spread. For decades, North American missionaries, both Protestant and Catholic, targeted Africa for evangelistic efforts, particularly since Europe opened the continent to white presence. Today, Africans themselves have become more responsible for broadening Christianity's borders. Tens of thousands of churches and cathedrals have sprung up as Africans have become aggressive in furthering the faith. According to a report by the World Council of Churches in 2004, by 2025 633 million Christians will reside in Africa, and shortly afterwards, Africa will surpass Latin America with the largest Christian population of any region of the world.

The particular brand of Christianity in Africa varies from place to place. In some countries, Roman Catholicism is the most popular form. Zimbabwe, for instance, is about half Christian, the majority of whom are Catholic. In others, Eastern Orthodoxy counts for important minorities, although it does not constitute a majority in any country. The fastest-growing churches at present are Protestant churches. Many of these are Pentecostal and charismatic churches, which have found rapid acceptance in Africa. In some areas of the Sahel, Christianity and Islam are both prevalent, such as in Nigeria where the two together account for about 85% of the population. Some countries have somewhat syncretic forms of Christianity, combining traditional faith with indigenous religions and rituals.

In Ethiopia, Cameroon, and other places, traditional African religions are still healthy. Many of these are difficult to classify because they often do not venerate a god or deity, instead practicing ancestor worship and rituals involving nature. These are actually quite widespread and significant in some areas, but they vary from region to region and even tribe to tribe. In a few spots, Eastern religions like Hinduism are popular, and the Bahá'í Faith has a few thousand followers in Niger. Bahá'í is a pluralistic and ***universalist*** religion that has gained popularity in modern times by seeking to reconcile the disparate beliefs of Christianity, Judaism, Islam, and other faiths, despite their contradictory natures.



Missionary Preaching in Africa

Life Principle

Faith is the force of life.

- Count Leo Tolstoy

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

World Geography

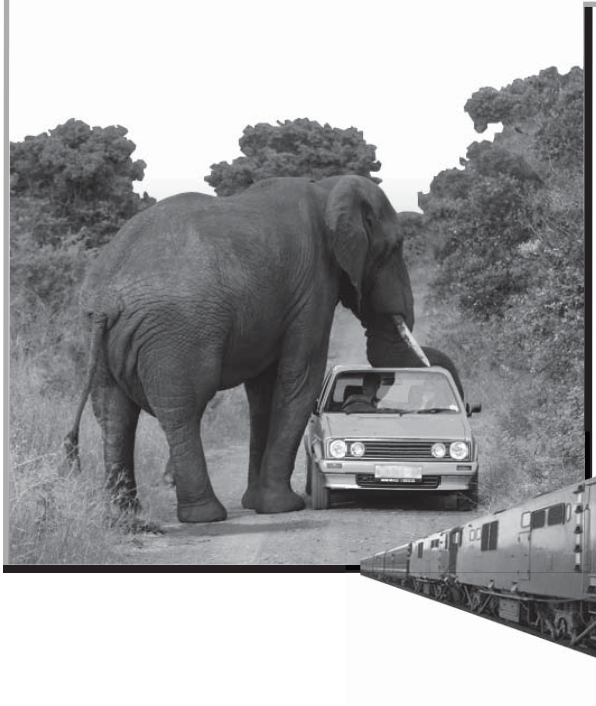
Chapter 4



Lesson 10
Transportation

Section 2
Lessons 6-10





After a week in town spent bartering their goods in the marketplace, the spice traders pack their bags. It's been a grueling seven days in the harsh desert landscape, spent selling thyme and rosemary to women shopping for their families and the occasional husband stocking up on necessities. The next stop is 300 miles away across sand dunes and treacherous rock cliffs, where they will restock their supplies and trade for needed food and other essentials. After a restless night spent at the local inn, the traders load their camels with their merchandise and enough food and water for the journey. The weather forecast for the next five days is mild: 110°F during the day, with winds of twenty miles per hour. Although they don't want to stray off a straight course too far, if they curve a bit south around day three, they could miss some worrisome sandstorms that should be cutting through their path about then. Although the camels will not require much to drink, the hot, dry days will stretch their now-full canteens uncomfortably thin—but their camels can't carry more water. Dressed in long cloaks to shield from the intense sun, the traders set out. Within about fifteen minutes, the town they just left is vanishing into the haze behind them, and the long, orange stretch of desert sand in front of them is mingling with the heat waves to produce surreal-looking mirages.

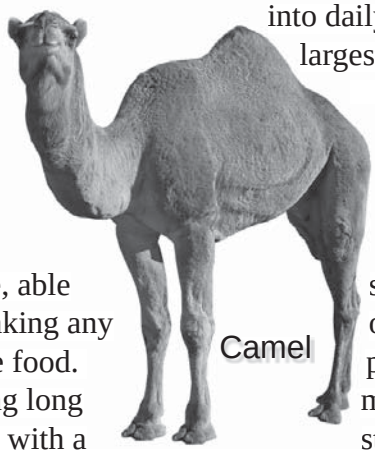
This isn't a scene from ancient Egypt or a scenario from Biblical times. Actually, it's a typical situation in northern Africa today, carried out every day in towns all over the Sahara Desert. In the age when you can cross the Atlantic

VOCABULARY

Nascent: beginning to develop
Camel caravan: series of camels carrying goods or passengers, typically found in North Africa
Rural: non-urban
Infrastructure: the foundational elements of society, such as transportation and utility lines
Subway: primarily underground electric railway carrying passenger traffic in a city

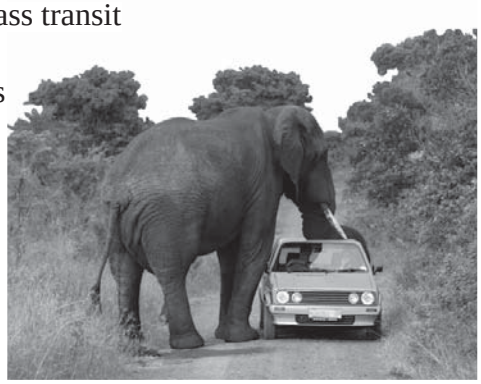
© Copyright 2010, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

in five hours, when new cars come with GPS systems and hard drives for storing music, when groundbreaking companies are entering the ***nascent*** world of space tourism, many North Africans travel across the Sahara Desert on camels. As strange as it may sound, it is often the easiest and safest way to cross the desert's harsh landscape, where few roads traverse and fewer travelers venture. Camels are remarkably designed to withstand the desert climate, able to travel weeks without drinking any water and surviving on little food. They are capable of traveling long distances even when loaded with a rider and supplies: some can travel 100 miles a day if they are in good shape, more than three times as far as a healthy person can walk in a day. During a tour across the Sahara in any vehicle, you're likely to see ***camel caravans***, groups of the animals bearing their riders through the inhospitable climate.


Camel

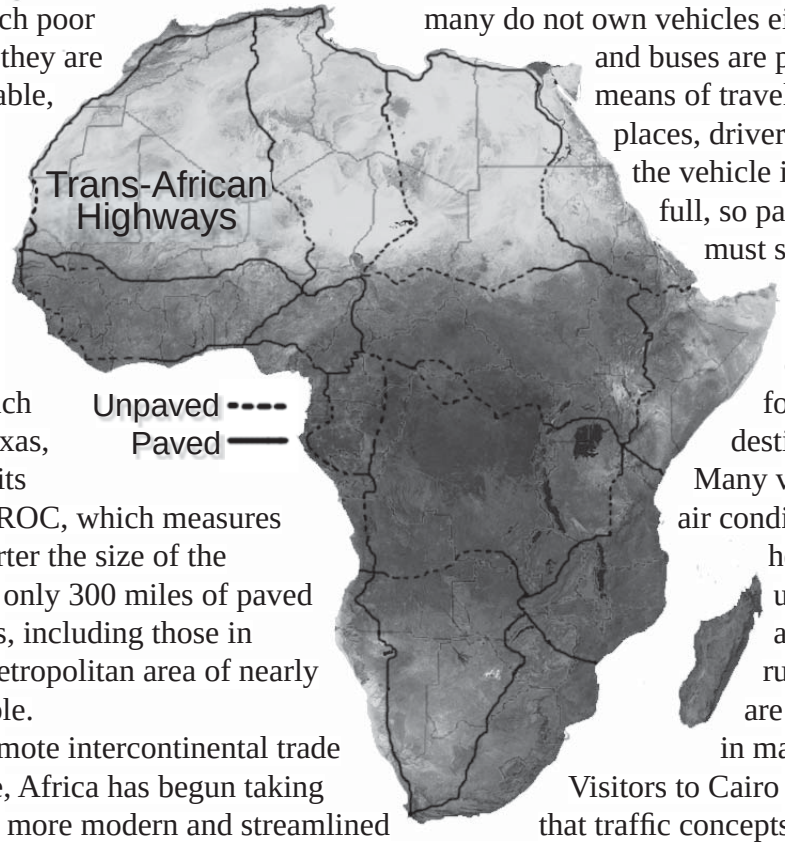
Africa is far behind modern Western standards of transportation. Traveling by camel in deserts may sound exceedingly primitive, almost as if Africa lacks highways or any fast, mechanized travel of any kind. This is a false impression, as highways crisscross the continent and some larger cities sport well-used mass transit systems. But to characterize Africa's transportation realities as wholly different from most areas of the world would not be inaccurate. On a continent where communities lack basic necessities to live, modern transportation methods are largely a foreign thing, used only by the rich and by visiting tourists. Three questions are instructive when evaluating Africa's transportation systems: (1) who travels? (2) why do these people travel? and (3) what means of transportation do they use? The answers provide a glimpse into daily life on the world's second-largest continent.

Data or statistics that are accessable in the U.S. and other developed nations are often sparse in Africa. Although spotty figures do exist from some countries, exact numbers on what percentage of Africa's population is urban are lacking, as many governments do not collect statistics. Yet, we do know that in spite of increasing urbanization, most of Africa's population lives in ***rural*** areas, on farms or in small villages. Some African nations are among the most rural in the world, such as Burundi, where 90% of the population lives outside of cities. Because of this, travel is limited and often means different things than it does in the developed world. Subsistence farmers, which probably account for most of Africa's population, spend most of their time on their land and in their villages, so the need for travel among towns, long distances from the home, is minimal. For them, travel is limited to an annual or semi-annual trip to the nearest moderately sized city, perhaps to purchase items not available at home or to sell extra crops from the spring harvest. Moreover, few rural areas have ***infrastructure*** permissive of motor vehicle traffic.



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

Most roads are either dirt or gravel, and in places where paved roads do exist, they are often in such poor condition that they are virtually unusable, especially during wet seasons. In 1997, about 128,000 miles of paved roads existed in Africa—much less than in Texas, which is 1/43 its size. In the DROC, which measures about one quarter the size of the United States, only 300 miles of paved roadway exists, including those in Kinshasa, a metropolitan area of nearly 9 million people.



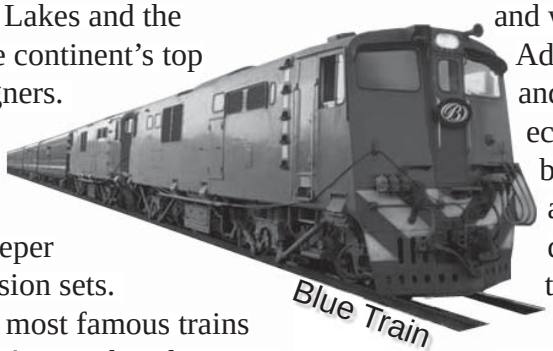
To promote intercontinental trade and commerce, Africa has begun taking steps toward a more modern and streamlined transportation network. The Trans-African Highway system, which has materialized over the past several decades, is a network of 35,000 miles (thus far) of high-quality highways that interlace among African nations, allowing for faster transportation of goods across national borders. The roads have also dramatically improved transportation within countries, particularly around and among large cities. As many of the highways are still unpaved, construction projects will likely continue for some time.

In urban areas, travel is affected by a variety of unique factors. Because life expectancies are low and mortality rates high, Africa's urban demographics are markedly younger than in most places. Forty-five percent of urban dwellers are under fifteen years old and up to two-thirds are under twenty-five, so relatively few people are of legal driving age. Because many do not own vehicles either, taxis and buses are popular means of travel. In many places, drivers wait until the vehicle is entirely full, so passengers must sometimes endure long waits before departing for their destinations. Many vehicles lack air conditioning or heating. Fixed, understood, and respected rules of the road are also a rarity in many cities. Visitors to Cairo often report that traffic concepts like right-of-way and courteous driving do not exist: instead, the largest car or the loudest horn wins. Streets in densely populated areas can be crowded, noisy, and extremely unfriendly. Because urban sprawl is not yet a widespread African phenomenon, huge numbers of people are packed into small areas, and pollution can be a problem. For unsuspecting tourists looking for regularly scheduled, fast ways to get around town, Africa is likely to disappoint them. Cairo is the only city on the continent with a ***subway*** system, and in most outskirts, a bus or taxi presence is not guaranteed.

For intercity transportation, many African countries offer charter bus services, roughly on par with those in the U.S. Routes and times are offered at regular, scheduled intervals, and generally

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

the service is reliable. Due to the lack of an adequate road network, however, it is sometimes impossible to find service from one city to another. For these journeys, trains can be useful, as many areas have passenger or cargo trains with passenger compartments. Some of these are targeted specifically at tourists and do not actually transport many native Africans, particularly those near the Great Lakes and the Serengeti, two of the continent's top attractions for foreigners. For a little more money, some cabins have air conditioning and sleeper couches, even television sets. Some of the world's most famous trains are found in Africa. A train that ships iron from the Mauritanian city of Zouerate to Nouadhibou on the coast is the longest currently operating train in the world, nearly two miles from end to end. Though its primary use is for iron transport, passengers can travel along on the 435-mile journey for about five dollars. In South Africa, the luxurious Blue Train is a virtual hotel on wheels, conducting passengers between Cape Town and Pretoria in style and comfort.


Blue Train

Compared to other continents, Africa's airports are only moderately important. Johannesburg's OR Tambo International is the busiest, a function of South Africa's comparative development and wealth. Cairo, Cape Town, Addis Ababa, Casablanca, and other major political and economic centers all have busy airports. While global air travel figures have declined in recent years due to a worldwide financial crunch and other factors, most of Africa's airports have experienced considerable growth as the continent develops and trends toward urbanization. Ironically, the exceptions to this are in South Africa, which already enjoys a standard of living well above the rest of the continent.

Life Principle

The road on which we begin life's journey may not be our choice, but how long we remain on it and the companions with which we journey is our choice.

- Ronald E. Johnson C. Ph. D.

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

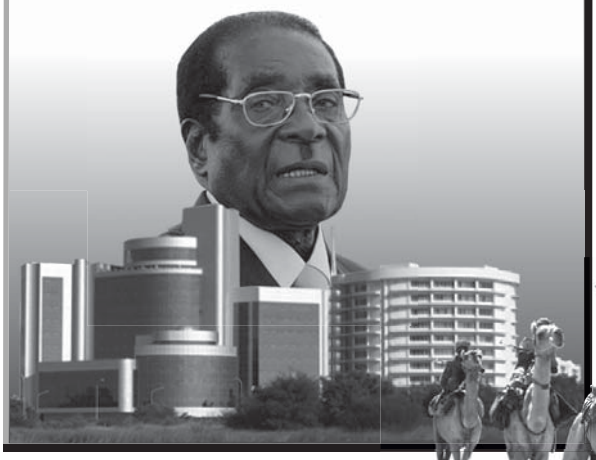
World Geography

Chapter 4

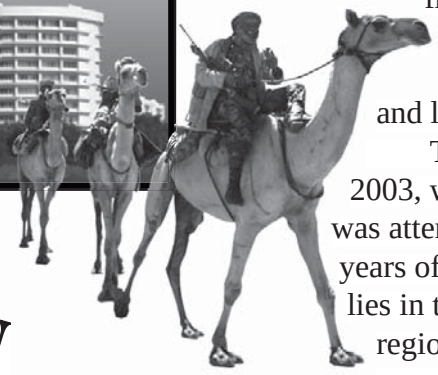
Lesson 11
Forms of Government

Section 3
Lessons 11-15

Forms of Government of Africa



A crisis has has been escalating in the Sudanese region of Darfur while the United States has been otherwise occupied with Islamic terrorists. The situation has slowly been brought to light by governments, humanitarian organizations, and major corporations across the world. What's going on in Darfur really makes most media issues around the world seem frivolous: millions of people have been affected by mass displacement, village-burning, and large-scale rape and murder.



The problems started in 2003, when Africa's largest country was attempting to wrap up thirty years of ongoing civil war. Sudan lies in the Sahel, the transitional region of Africa where both the geographical and human landscape shifts dramatically over a short distance. Northern Sudan is barren desert, ethnically Arab, and largely under the control of the government in Khartoum. Southern Sudan, which includes the far western region of Darfur, is considerably wetter, and many native tribes and ethnic groups have lived in the savanna for thousands of years. Two rebel groups, the Sudan Liberation Movement and the Justice and Equality Movement, launched a series of attacks on Sudanese military bases. While their motives are generally understood, the rebels' specific aims in the attacks are still questionable—many observers are unsure exactly what the groups hoped to accomplish.

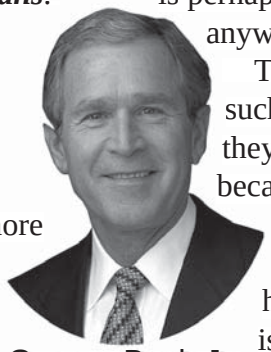
The Sudanese government responded quickly to quell the attacks. It began a counterassault on the rebel groups'

VOCABULARY

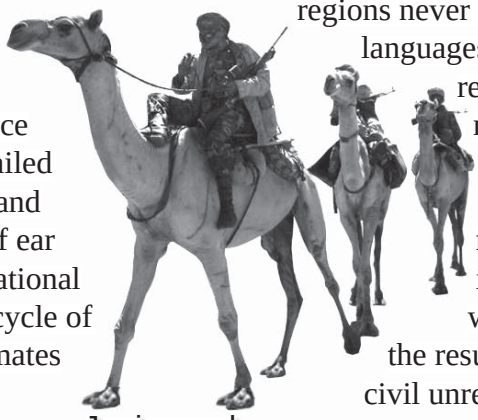
Civilian: nonmilitary citizen
Scorched earth policy: military strategy of destroying anything that might be valuable to the enemy, often in the form of burning camps or villages
Genocide: systematic extermination of a racial or cultural group
Abysmal: terrible; extremely low
Vilify: defame; smear

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

traditional turf in Darfur, in the process wiping out large numbers of ***civilians***. In addition, Khartoum armed independent militia groups and guerillas to continue the assault, a group collectively known as the Janjaweed. As rebels persisted in their strikes on the government, more people in Darfur were displaced and killed by the government-sponsored Janjaweed, who targeted ethnic groups it believed were supporting the rebels. Janjaweed and government forces initiated a ***scorched earth policy***, burning villages to the ground, and residents were forced to flee to neighboring Chad. Humanitarian aid began to pour into the region via organizations like the U.N., World Vision, Invisible Children, and Amnesty International, but the government diverted and erected barriers to their arrival and distribution. A peace treaty signed in 2006 failed to stem the bloodbath, and Sudan has turned a deaf ear to calls from the international community to end the cycle of attacks. Although estimates vary widely as to the numbers affected, sources estimate that nearly 3 million people have been displaced and at least 400,000 slaughtered by government and feuding rebel forces. Some Darfur residents have lost everything they own in the burning of villages, and women who leave their refugee camps risk being raped and murdered in open daylight. World leaders, including former U.S. President George W. Bush, have called what's happening ***genocide***; and whether or not the term technically applies to this situation, Darfur is perhaps the single most troubling conflict anywhere in the world today.



George Bush Jr.



Janjaweed

The affairs in Sudan have received such widespread coverage because they are frightening and tragic, and because they are such a departure from the norm. Yet, they paint a vivid picture of the past problems that have plagued Africa's governance, issues that still mar politics and stability on the continent today. Africa is perhaps the least stable area of the world with the exception of the Middle East. Most of its governments face considerable obstacles to peace, solidarity, and worldwide respect. Partly, the continent is still trying to learn to govern itself following European colonization a hundred years ago; but Africa is also a diverse land with challenges most regions never face. Hundreds of different languages, ethnic groups, even religions, thrive across Africa, many of which have deep roots in their respective territories. Add to that a predominantly rural population, undeveloped infrastructure, and no history whatsoever of unification, and the result is a continent floundering in civil unrest.

Governmentally, Africa is the single most diverse continent on the globe. Presidential republics are the most common form of rule, utilized in more than thirty countries in Western Africa, and through the Great Rift Valley. A handful, including Egypt, the DROC, and Somalia, are semi-presidential republics. South Africa and Botswana are two of the world's only examples of presidential republics that involve parliamentary systems; Ethiopia and the island nation Mauritius are fully

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

parliamentary republics. Lesotho and Morocco are constitutional monarchies, but Morocco's leader holds considerable more power than most monarchs. Libya, Mauritania, and Guinea are military dictatorships; Eritrea is an authoritarian single-party state; Swaziland is an absolute monarchy. Africa has at least one representative of the nine general kinds of government found throughout the world today.

In spite of the prevailing instability, some of Africa's nations are relatively stable. Botswana and South Africa are examples of a blended parliamentary and presidential system, and require executive and legislative branches to collaborate closely. Botswana has long been cited as the most secure nation on the continent, having held fair, free elections for forty years. South Africa has emerged more recently as a stable government after opening elections to blacks in 1994. That year's election was universally considered a landmark, as apartheid crusader Nelson Mandela was elected president after being imprisoned for 27 years. Since then, the nation has made rapid strides toward freedom and equality. Some economists and political observers point to these nations' open and legitimate political structures as the catalyst for their economic fitness. Elsewhere, Gabon is generally recognized as one of Africa's more stable countries, and so is Benin in the bulge, which has speedily adopted capitalism and democracy since the communist regime crashed in 1989. Both have presidential republics.

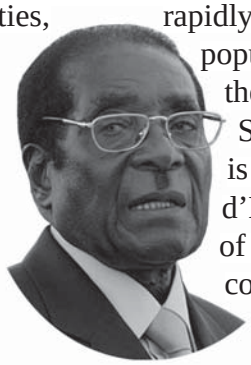

Botswana Government Buildings

In the bulk of Africa, political climates are less solid. Some countries, such as Ghana, have achieved some success in holding free elections, involving voters, incorporating myriad ethnic groups, and suppressing potential violence. Voters in Ghana have been allowed voting privileges since the military dictatorship ended in 1981. Tanzania is similarly stable, with the most recent elections producing legitimate and largely uncontested results. Angola has been racked by civil war since the 1980s, and the current constitution has effectively been trashed, as leaders are working on a new one. Millions of Angolans have been displaced, law enforcement and legal protections are noticeably absent, and public services like schools and hospitals are woefully under equipped. In the Central African Republic, a 2003 revolution installed a new president, who subsequently won another term in the 2005 elections. Yet, severe financial woes forced much of his regime to fold shortly thereafter, and violence, associated with the nation's dire financial straits and political unrest, is common.

Some places in Africa go beyond the merely unstable; they border on the oppressive and tyrannical. Zimbabwe's political condition has been ***abysmal*** for some time. Jane's, a corporate intelligence and public administration consultant, ranked the country among the ten least stable nations in the world in 2008 (seven of the bottom ten were in Africa), largely due to the reign of President Robert Mugabe. Mugabe was elected president in 1987 and has not relinquished power since, perpetuating his rule through a series of rigged elections and a mere refusal to vacate the office. Widely ***vilified*** throughout most of the world, charges

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

against him include political thuggery, inducing out-of-control inflation, racism against Zimbabwe's white minorities, and allowing many aspects of life in the country to tank. The statistics are revealing. ***Life expectancy*** in Zimbabwe in 1990 was 64 years; in 2009, it was 45. As of 2008, Zimbabwe's inflation rate stood at 11,250,000%—rendering its currency virtually worthless. Although it has the second-highest literacy rate in Africa, many Zimbabwean schools are closing—a development that will be disastrous to its economic fortunes.


Robert Mugabe

In Chad, the situation in Darfur has further burdened the volatile political climate. Alongside Zimbabwe, Chad is considered one of the most corrupt countries in the world. President Idriss Déby has run the country since 1990, unfairly favoring ethnic minorities and misappropriating valuable oil revenues to his political ***cronies***. As refugees from Darfur pour into Chad, they have fled to other countries to escape the oppressive Chadian regime. Various rebel groups have attempted to overthrow the government over the past several years, but none have been successful. Notably, France lends its support to the Chadian government. In Somalia, nearly two decades of civil war have upended political prosperity. As of 2009, several political factions controlled different parts of the country, and the resignation of the sitting president in 2008 did not help bring about stability. The popular film *Blackhawk Down*, depicted the civil turmoil that racks many African nations.

Other conflicts in Africa have made world headlines over the past few years. In the mid-1990s, genocide similar to that in Darfur ravaged Rwanda as the government rapidly exterminated huge ethnic populations in the country. In Morocco, the disputed territory known as Western Sahara claims independence but is also claimed by Morocco. Côte d'Ivoire suffers from violence and lack of political stability. In many African countries, civil wars have dominated news at various points during the 20th century and today. Ironically, the continent of Africa is blessed with abundant natural resources. Were those resources managed by governments based on the principles and virtues which were foundational to the United States, Africa could very well be a dominant player in global politics.

VOCABULARY

Life expectancy: years of expected life as calculated at birth for an average person
Crony: political friend; favorite, especially when the favoritism is bought rather than earned by merit

Life Principle

Give me liberty to know, to think, to believe, and to utter freely according to conscience, above all other liberalities.

- John Milton

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

World Geography

Chapter 4



Lesson 12
Diplomatic Relations

Section 3
Lessons 11-15



Diplomatic Relations of Africa



In August 2009, Scotland made headlines by announcing it would free Abdel Basset Ali al-Megrahi, the 57-year-old convicted mastermind of the bombing of Pan Am Flight 103, commonly known as the Lockerbie Bombing. Al-Megrahi, a former Libyan intelligence and security officer, had been convicted of the 1988 bombing that ripped apart a Boeing 747 en route from London to New York City, killing all 259 people on board and eleven on the ground in Lockerbie, Scotland. Diagnosed with terminal prostate cancer, al-Megrahi's doctor stated he had less than three months to live in August 2009, eight years into his life prison term. Scotland subsequently declared it would free him on compassionate grounds, allowing him to spend the remainder of his life with his family in Libya. The announcement prompted a firestorm of criticism from around the world, including many of the families who had lost loved ones in the cruel massacre. Many nations pressured Scotland not to release al-Megrahi, particularly the United States, which accounted for 190 of the 270 victims. Some critics speculated that the release may have been motivated by economic concerns rather than al-Megrahi's well-being, claiming Scotland was looking for favor with oil-rich Libya. Yet the controversy failed to deter Scotland, and on August 20, al-Megrahi returned to a hero's welcome in Libya, which has a penchant for breeding and abetting terrorists. As of December 2009, al-Megrahi was still alive and well, living with his family in Libya.



The episode was a black mark on global diplomatic

VOCABULARY

Isolationist: policy of limited or no interaction with other nations or transnational organizations
Despotism: rule by a single authority, often a tyrannical or abusive one
Sanction: penalty; coercive measure to obtain compliance
Embassy: permanent diplomatic liaison between countries

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

relations with Africa. Largely self-sufficient in ancient times, parts of Africa were colonies in the Roman Empire and then somewhat ***isolationist*** thereafter. In the early centuries AD, Christian and then Muslim expansion connected North Africa with neighboring regions culturally and religiously. Trade via the Indian Ocean, to both the Arabian Peninsula and South Asia, continued throughout the Middle Ages, particularly on and near the coast; but for centuries Africa was known as the "dark continent" by Europeans, as the continent's interior remained wholly unexplored. Around the turn of the 20th century, sudden European interest in the continent brought about its rapid colonization, as mentioned in previous lessons, and by 1914 virtually the entire continent was claimed by European nations. Two world wars redirected European attention back to Europe, and during the latter half of the 20th century, African countries gradually gained independence. Today, much of the diplomacy regarding Africa revolves around humanitarian aid provided it by other countries, as many African countries are facing monumental crises with such issues as aids, terroism, drought, and illiteracy.



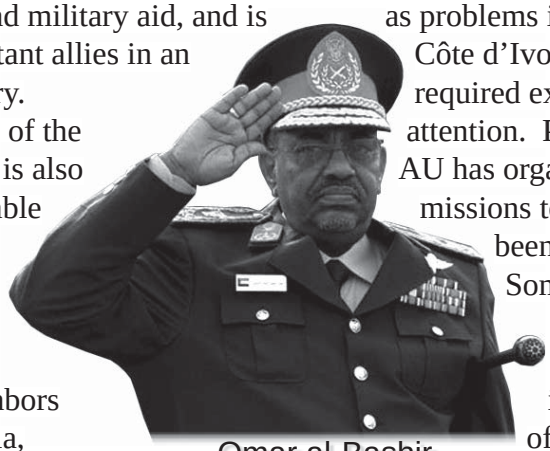
Africa is unique on the world stage in that it has long been sidelined, its concerns given less focus and urgency than those in regions like Europe and North America. Part of this can be traced to economics, as Africa contributes little to the global economic pie: in 2009, the continent's total GDP was about 2.2 trillion dollars—slightly less than Italy's, which has less than one-sixteenth of Africa's population. Despite the outpouring of support in a few cases like the tragedies in Darfur and Rwanda, the unrest on the continent has been essentially viewed as an African problem, one in which the rest of the world is hesitant to become involved. A few observers have noted that if the problems in Africa were occurring in Europe—ethnic feuding, ***despotism***, massive malnutrition, epidemic diseases—the globe would view it as an emergency far outstripping any other issue. As General Zateb Kazim mused in the 2005 film *Sahara*, "It's Africa. Nobody cares about Africa."

Diplomatically, some African nations enjoy genuinely cordial relations with countries on the continent and around the world. Since the formal end to its conflict with Israel in 1979, Egypt has brightened relations with much of the Western world, and some countries consider Egypt as a key ally in the Middle East. Regionally, Egypt has maintained close connections with nearby nations through the Arab League, of which it is a charter member. The 22-member organization is a key player in

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

the region, encompassing countries from Mauritania to the United Arab Emirates, and fostering cooperation and development among Arab nations. Sudan, a fellow member of the Arab League, is perhaps Egypt's closest relationship in North Africa, although Sudanese turmoil and immigration to Egypt has strained relationships. Egypt's location on the Mediterranean gives it strategic access to Europe, and thus trade with both EU and non-EU nations has benefitted Egypt enormously. Relations with the U.S. have also warmed considerably since the stormy era of the mid-20th century. Egypt has been a recipient of large amounts of U.S. humanitarian and military aid, and is one of the U.S.'s important allies in an often-unfriendly territory.

At the other end of the continent, South Africa is also among Africa's formidable influences. It is a chief player in affairs in southern Africa, maintaining strong relationships with neighbors such as Namibia, Angola, Lesotho (which is a South African enclave), and even Zimbabwe. Many of South Africa's diplomatic relationships are in their relative infancy, as the end of apartheid and launch of democracy in 1994 opened many diplomatic doors. In Namibia, South Africa's currency is legal tender, and many neighboring nations are important trade partners. U.S. ties are strong here, as well. The nations are linked by a legacy of mistreatment of blacks; and like many nations, the U.S. realizes that South Africa has a strong card to play in boosting Africa's economic fortunes as one of the most developed countries on the continent. Ties with Asian nations, particularly the powerhouses of China and India, have been growing recently, as well.


Omar al-Bashir

Much of the diplomacy and relationships in Africa occurs under the guise of transnational organizations. The African Union (AU) is arguably the most influential of these. Composed of every African nation except Morocco (but including Western Sahara), the organization is similar in aspects to the EU and aims at a comprehensive list of goals, including promoting development, achieving peace and sovereignty for its members, and keeping a check on human rights. That list has created a tall order for the union, as problems in Somalia, Comoros, Côte d'Ivoire, and elsewhere have required extensive support and attention. Practically speaking, the AU has organized peacekeeping missions to these areas that have been moderately helpful. Some disputes with other entities, however, have marred the AU: in 2009, the body cut off relations with the International Criminal Court (ICC), a transnational court backed by 110 countries, after the court issued an arrest warrant for Sudanese President Omar al-Bashir. The ICC accused the President of genocide and war crimes. In addition to the AU, organizations like the Group of 77 are important. This U.N. body is a collection of developing nations aimed at furthering economic interests and fortunes. Ultimately, the countries in the Group of 77 aim to leave the group, for each would prefer the status of "developed country" to "developing country." Very few countries have had success in leaving the organization, though.

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

On the diplomatic front, a few countries in Africa are troubling to the rest of the world. Libya, under domination by Mu'ammar al-Qadha, has been a problem for decades, with a continuous history of support for international terrorism and sometimes-hostile, anti-Western leanings. The 1980s were particularly tumultuous, with the 1986 attack on a Berlin, Germany dance club, the 1988 Lockerbie Bombing, and another aircraft bombing in 1989. The U.S., among other nations and entities, placed ***sanctions*** on Libya during this period. On April 15, 1986, U.S. President Ronald Reagan orderd U.S. war planes to bomb Tripoli as a warning to Libya to curtail its international terroism. Libya assumed a low profile until it began producing chemical weapons and pursuing nuclear development. Relationships with the outside world chilled even further in the early 1990s, and finally subsided in the late 1990s and early 2000s. U.S. travel to Libya was reopened in 2004. In 2008, Libya made compensation to families of both the Berlin and Lockerbie victims. Although relations have been on the upswing, much of the world still views Libya warily, citing its history of state-sponsored terrorism and diplomatic volatility.



Abdel Basset Ali al-Magrahi



Lockerbie Bombing

Other nations vary considerably on the foreign relations front. Many African nations are currently seeking outside aid and investment in the country, attempting to strengthen exports and gain valuable trading partners. Chad, for instance, has ***embassies*** in only twenty-five countries, but is actively pursuing relation development. Ghana has bettered its foreign ties over the past decade, as have Sierra Leone and Benin. In Zimbabwe, tensions have mounted as the political climate has deteriorated. Australia has placed sanctions on Zimbabwe, and Canada has drastically cut trade and travel to Zimbabwe. Among other dubious distinctions, Zimbabwe has praised Cuba for its commitment to communism.

Life Principle

Tis thus that on our choice of friends
Our good or evil name depends.

- John Gay

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

World Geography

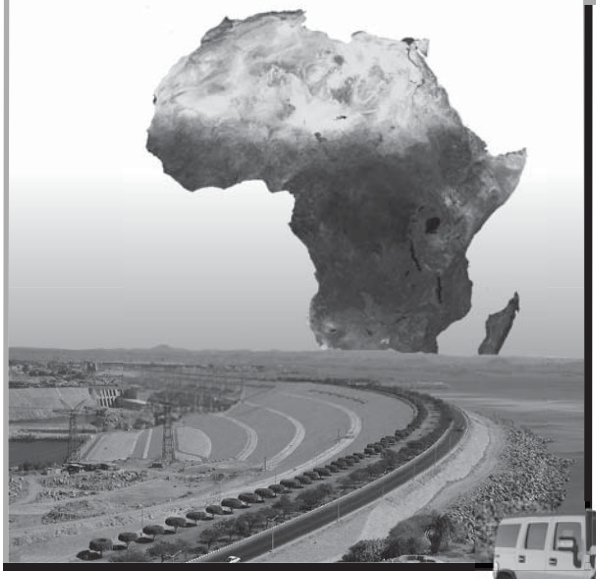
Chapter 4



Lesson 13
Economic Systems

Section 3
Lessons 11-15





It's daybreak, and workers at the Hummer-producing General Motors plant are filing into the building. Work will be busy today—like every day—as plant assemblymen and technicians install engines, detail interiors, and check settings on the vehicles, which landed the city a $100 million contract several years ago. Several towns away, competitors from Mercedes-Benz and Toyota are working feverishly to keep as many of those Hummers from Americans as possible, touting instead their luxury sedans and increasingly eco-friendly engines. All told, the Hummer employees and their counterparts total around 36,000 people in the country, accounting for nearly 8% of the total economic output, a sizeable cut of the field. Amidst a global economic recession, these workers hope to put as many people behind their wheels as possible—or at least enough to stay afloat and employed.


Hummer

This scene is not a picture from Detroit or Tokyo, or any one of many auto manufacturing cities throughout the United States. It is Straundale, South Africa, one of several key vehicle-producing hubs in Africa's southernmost country. The existence of vehicle plants—or vehicles—in Africa seems strange to people who equate African economics with spear-wielding nomads trading their latest kill for Eastern spices. Yet, South Africa manufactured nearly 700,000 vehicles in 2007, more than any other African country. Advantages of locating in South Africa include good infrastructure for shipment and transport, inexpensive raw materials and electricity, and a similarly surprising number of auxiliary companies which produce car components. It

VOCABULARY

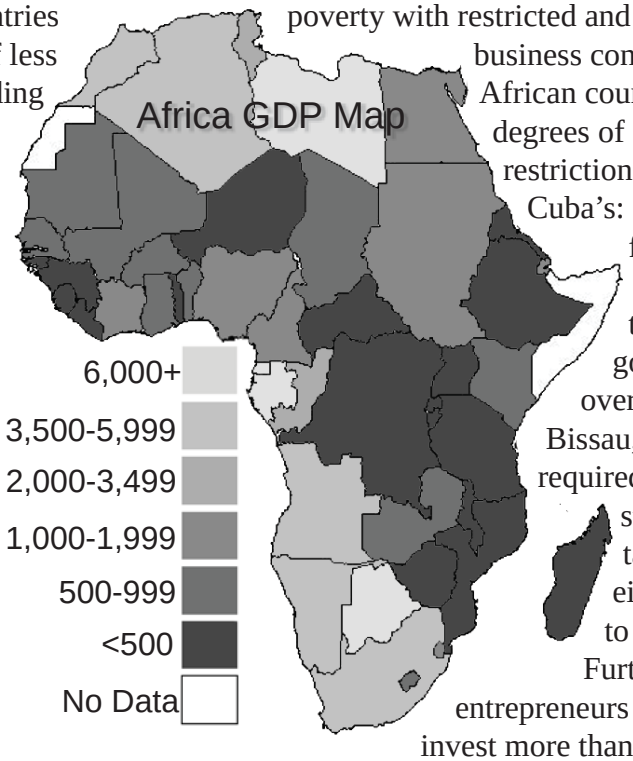
GDP per capita: total GDP divided by population
Avertable: capable of being avoided or warded off
Corruption: use of a position's power for illegitimate private gain
Revitalization: regeneration; restoration
Debt forgiveness: cancellation of money owed

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

is an encouraging sign in an economically distressed land.

• The CIA World Factbook ranked 192 countries and territories by ***GDP per capita*** in 2008. Of the 40 countries with per capita GDPs of less than $1,000, 29—including the bottom 12—were in Africa.

• According to the World Bank, Africa's 53 countries combined for a 2009 economic output of $2.2 trillion. If Africa were a single country, it would rank 8th in the world, between Italy and Russia, despite the fact that both these nations have a fraction of Africa's population. By comparison, the U.S. state of California produced $1.9 billion, just 16% less.



• In sub-Saharan Africa, 315 million people—a third of the continent—live on less than a dollar a day. 547 million do not have electricity, and 540 million do not have access to clean water. The total U.S. population is just over 300 million.

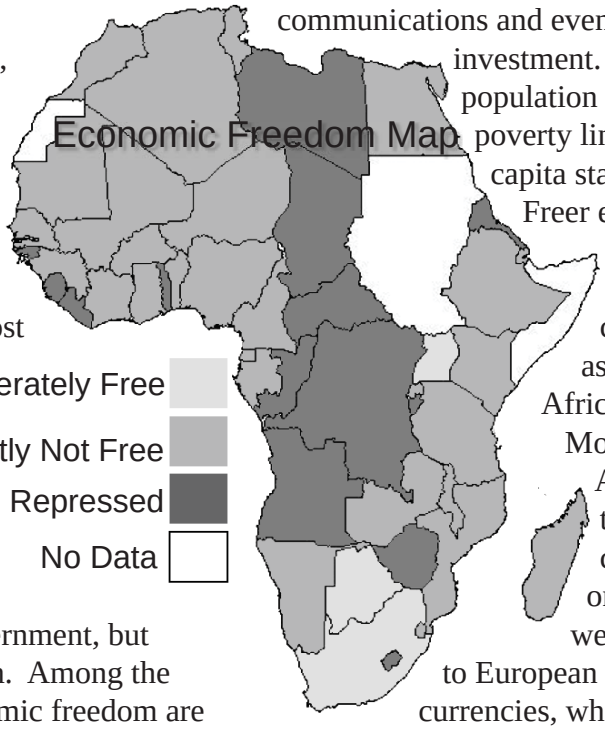
• In sub-Saharan Africa, average life expectancy is 47 years, largely due to ***avertable*** problems such as lack of clean water and treatable diseases. Of the lowest countries, Africa accounts for the bottom 12, 33 of the bottom 34, and 40 of the bottom 42.

In 2002, The Fraser Institute released a press statement promoting economic freedom around the world. Tucked away inside it was this nugget: "Africa's persistent poverty is not due to a lack of foreign aid—African nations are the largest aid recipients—but to a lack of economic freedom on the continent." It is perhaps a teachable reality that Africa couples abysmal poverty with restricted and controlled business conditions. Some African countries have degrees of economic restriction that rival Cuba's: stiff requirements for starting a business, high taxes, and strict government oversight. In Guinea-Bissau, for instance, the required procedures for starting a business take nearly eight months to complete. Furthermore, entrepreneurs are required to invest more than ten times the average national income to get started, limiting business establishment to a tiny minority of the population. Government ***corruption*** is also a major burden on economies, as dictators in places like Zimbabwe and Somalia have unfairly taxed and restricted economic freedom, giving mining and oil drilling contracts to political supporters and cronies.

Most African countries are hard to classify according to a strict capitalist–communist continuum. While European colonization brought capitalism, or at least capitalistic principles, to the continent, Europe's withdrawal saw the influx of socialism across Africa. Many of Africa's traditionally self-sufficient groups and tribes operated on somewhat of a group-focused, rather than individual-focused, economic

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

system, so some level of socialism is ingrained in many cultures. Group members who hunt, fish, and gather food would share with others, sometimes without a strict concept of ideas like buying and selling, prices, and personal property. In a modern context, however, this approach has largely failed, as a very small, but wealthy, upper class exists in many countries alongside a sprawling poverty-stricken lower class. Some leaders are recognizing the link between poverty and the nation's economic system, and have attempted to liberalize in recent years, pursuing Western models of capitalism and free market policies. Yet, old habits are hard to break. In Djibouti, one of the most liberal economies in Africa, the government or government-backed monopolies, run many public utilities, earning some income for the government, but stifling economic freedom. Among the worst countries for economic freedom are Eritrea, the DROC, Comoros, Niger, the Central African Republic, Angola, São Tomé, Príncipe, and Zimbabwe.



On the brighter side, a few nations have been moderately successful at implementing capitalism, thus their economies have generally evidenced the change. Uganda has aggressively pushed to change its economy, taking a multi-pronged approach to increase exports, develop petroleum reserves, and update infrastructure. Like nearly all African countries, Uganda has received sizable financial assistance and humanitarian support from Western lenders, and has been more successful at repaying its debts than other countries. Inflation has plummeted since the 1980s, dropping from 240% in 1987 to 10% in 2008. Off the mainland coast, Mauritius's economy bears little resemblance to the rest of Africa's. Strong sugarcane exports have pumped money into the economy, allowing the government to improve transportation and communications and even attract foreign investment. Just 8% of the population is below the poverty line, and GDP per capita stands at $12,100. Freer economies in Africa include these two countries, as well as Botswana, South Africa, and Namibia. Most countries in Africa maintain their own currencies. At one point, these were tied in value to European or American currencies, which provided a measure of stability; during the latter 20th century, many currencies broke their ties. Two blocs of countries share a common currency. The first is in Western Africa and includes Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo, who use the West Africa CFA Franc. The second bloc includes Cameroon, the Central African Republic, Chad, Congo, Equatorial Guinea, and Gabon. The currency is the Central African CFA Franc. Trade within these blocs is easier and more common than elsewhere

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

due to shared currency. Inflation rates in Africa are very high, but a few nations have paradoxically low rates—such as Niger, the second lowest in the world.

One major barrier to economic ***revitalization*** in Africa is the enormous debt the continent has incurred. Africa spends more money repaying its debts each year—in the tens of billions of dollars—than it receives from humanitarian aid. This diversion of scarce wealth has kept funding from much-needed programs to prevent AIDS and treat malaria, and from investment in the continent's infrastructure. While many wealthy nations have provided ***debt forgiveness*** programs in Africa, this is a double-edged sword, as debt cancellation restricts ability of a country to receive future aid. Without external aid, countries often cannot establish a foundation for growth and thus become self-sufficient—and the cycle continues. In addition to the required repayment, financial mismanagement has been a problem in many countries. A commonly cited example of this was construction of the Aswan High Dam in 1970. Located on the Nile River, the dam stopped the river from flooding every year in the densely populated delta region. Yet, it has simultaneously dried up the steady supply of silt and nutrients to areas farther down the river, which has been extremely detrimental to agriculture and fishing in the Mediterranean Sea.



Aswan High Dam

Life Principle

Friends, if we be honest with ourselves, we shall be honest with each other.

- George MacDonald

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

World Geography

Chapter 4



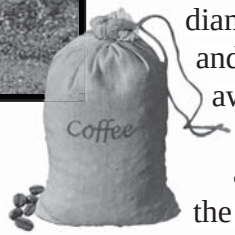
Lesson 14
Natural Resources

Section 3
Lessons 11-15

Natural Resources of Africa



The film ***Blood Diamond*** tells the story of the volatile political climate in Africa and the use of diamonds to finance insurgencies. Recognizing the steady flow of blood diamonds out of Africa, the diamond industry voluntarily adopted resolutions in 2000 blocking the export or sale of diamonds sold for war financing, an agreement now known as the Kimberley Process Certification Scheme. Diamond seller De Beers estimated in 2006 that no more than one percent of diamonds worldwide are blood diamonds, and a media blitz has increased consumer awareness of diamond sources and histories. But it does draw attention to a significant reality in Africa, namely the continent's large number of diamonds and the role they play in unstable areas.



Diamonds are one of Africa's most valuable and well-known natural resources. First discovered in South Africa in 1866, they have since become a major economic contributor to the continent, mined in more than a dozen countries. Botswana has been the biggest provider in the market—20% of the world's supply comes from the small country—but other nations like South Africa, the DROC, Angola, and Namibia also export large percentages. In Africa's bulge, smaller mines exist, particularly in Ghana, Liberia, and Sierra Leone. These countries include some of the world's largest and most profitable mines—South Africa's Venetia Mine, Botswana's Jwaneng Mine.

Diamonds reach into Central and Western Africa in some places, especially from Ghana to Sierra Leone and in the Central African Republic, and Ghana extracts moderate

VOCABULARY

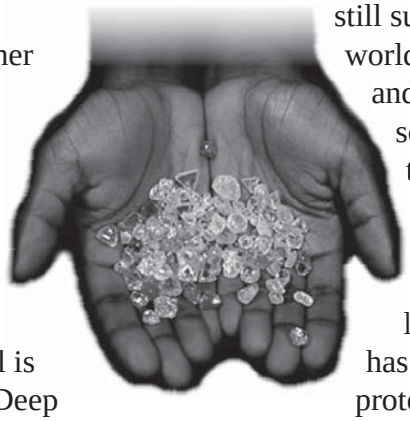
Blood diamond: in Africa, a diamond sold to finance a war or insurgency
Uranium: element important in nuclear weapons and nuclear power generation
Saltpan: small, shallow depression where water accumulates, evaporates, and deposits salt
Timber: cut wood
Barter: to exchange or trade without a common medium of exchange, such as currency

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

amounts of gold. As would be expected for the second-largest continent in the world, Africa is home to a wealth of natural resources. From the diamond-rich areas of the south to oil-producing countries in the Sahara Desert, Africa has been endowed with all the tools it needs for economic success. While the continent currently has the bleakest economy on the planet, these problems largely owe to social issues, moral values, government corruption, and mismanagement of funds rather than a lack of raw materials. Indeed, some of Africa's natural resources are found in few other places in the world.



Blood Diamonds



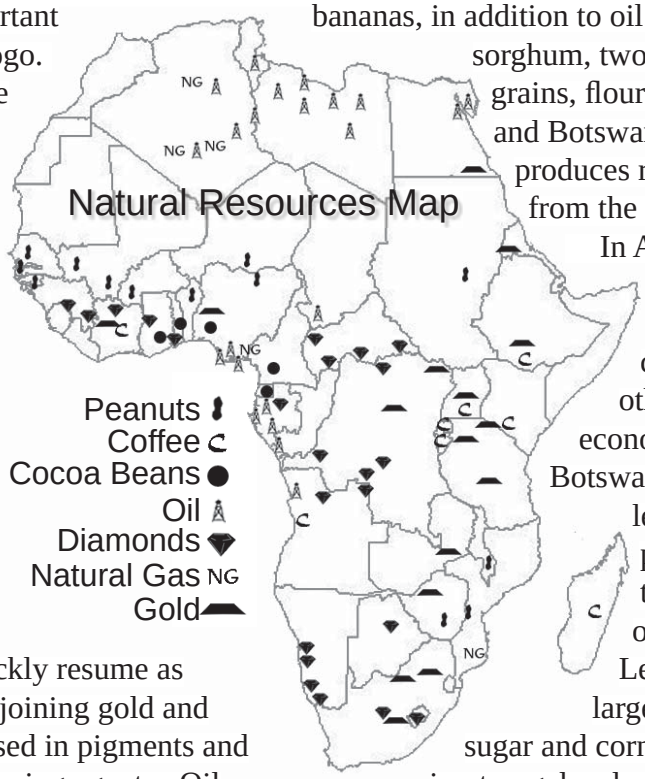
If diamonds are Africa's trademark resource in the south, then oil is its counterpart in the north. Deep beneath the blistered sands of the Sahara Desert, massive oil pools have supplied North African economies with exports for decades, and they continue to be important resources. The biggest beneficiary from the resource has undoubtedly been Libya, which, as of 2008, had 40 billion barrels, or about three percent of the world's supply. More telling is the industry's contribution to the Libyan economy: "black gold" currently constitutes half of GDP and an astonishing 95% of exports. Neighboring countries, however, have prevented Libya from holding a monopoly on regional petroleum production. Algeria has an estimated 12 billion barrels, and Egypt and tiny Tunisia both have smaller reserves. High levels of production relative to supply will soon force some of these countries either to find other oil sources or diversify their economies; but for now, oil remains a valuable sector of national economies.

Aside from oil, other fossil fuels are important in North Africa. Algeria, Egypt, and Libya all have large reserves of natural gas, used in heating and cooking systems. The fossil fuel trails petroleum and coal in its share of worldwide energy production, but still supplies nearly a quarter of the world's energy needs. In Chad and Niger, ***uranium*** deposits are scattered liberally throughout the country. Niger counts the element, used in nuclear power plants and various military applications, as its largest export, while Chad has entered military conflicts to protect its supplies. Chad is also rich in gold. In Tunisia, salt mining is an important economic activity around ***saltpans*** and salt lakes.

South of the Sahara, some of these resources mix with others of equal importance. Nigeria is Africa's second-largest oil producer and has the 7th-largest reserves of natural gas in the world. Other minerals become more widespread here, particularly iron ore, which is used in both metallic iron and steel production. Mauritania and Guinea are important producers of this mineral in the region, while farther east, copper is important. Though no country rivals Chile in copper production, Eritrea, Sudan, and Uganda produce large quantities. Agriculturally, some of Africa's most important resources are found here.

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

Coffee and cacao are important exports—not so much as in Latin America, but African coffees have found homes on store shelves worldwide. Cultivation of the cassava plant, grown for its edible root, is centered in Africa from Guinea to Cameroon, and large quantities are grown in other nearby countries as well. Located close to the Equator, staple crops like rice and corn grow profusely and are important to Côte d'Ivoire and Togo. Near the coasts, fish are an important resource. In Equatorial Guinea and Gabon, ***timber*** is harvested in large quantities, despite the potential for harm to local habitats and ecosystems. Many of these resources have historically been used by people groups that ***bartered*** rather than bought and sold goods.

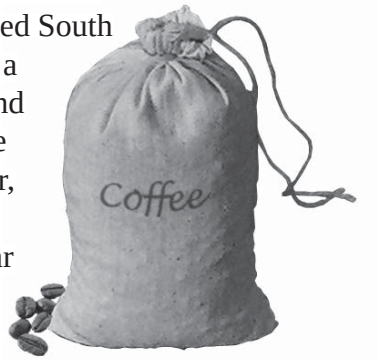


Below the Equator, diamonds quickly resume as an important resource, joining gold and manganese, which is used in pigments and dyes, batteries, and cleaning agents. Oil also regains industrial dominance in Angola, which has reserves of 25 billion barrels, but is far less prevalent in nearby countries. Zambia owns about 4% of the world's copper, while tin is important in Tanzania. Copper production in Zaire (the predecessor to the DROC) plunged dramatically during the 1980s and 1990s, dropping 90% from 1976 to 1993. But today's DROC has modest reserves, and increased stability would surely lead to increased production. A few countries like Rwanda and Burundi have gold stores. Other minerals, notably coal, cobalt, and zinc, can also be found throughout the region. Some of the more important resources, however, are grown rather than extracted. Coffee is still important here, as is tea. Cotton is grown extensively throughout sub-Saharan Africa, aided by relatively low elevations and warm temperatures. Angola's rebounding economy is based on coffee, corn, and bananas, in addition to oil. Millet and sorghum, two dry-climate grains, flourish in Namibia and Botswana. The DROC produces rubber, grown from the rubber plant.

In Africa's far south, diamonds and tropical crops compete with other minerals for economic dominance. Botswana is the world leader in diamond production, while the tiny nations of Swaziland and Lesotho produce large amounts of sugar and corn. South Africa is, strangely, almost a different story entirely. It is true that part of the country's economic prosperity has owed to a lack of governmental corruption, free and democratic elections, and capitalism that lures large corporations to invest in the economy. South Africa is also naturally blessed with a huge wealth of resources. In addition to its diamonds, South Africa has among the largest reserves of iron ore, uranium, and chromium in the world. It is the world's leader in gold production, grows large amounts of wheat and fruits, and dedicates considerable land to livestock

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

raising and poultry production. These resources have no doubt allowed South Africa's economy to thrive on a continent where "economy" and "thrive" are rarely found in the same sentence. In Madagascar, crops like coffee, sugar, and vanilla are grown. Madagascar also has large areas that are forested, so timber is an important commodity.



Life Principle

Property has its duties as well as its rights.

- Thomas Drummond, 19th century British engineer.

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

World Geography

Chapter 4



Lesson 15
Imports, Exports and Major Industries

Section 3
Lesson 11-15

Imports, Exports and Major Industries of Africa





As the 21st century gets into full swing, Africa finds itself challenged from many corners. One of these challenges is undoubtedly Burkina Faso. Located directly north of Ghana, the landlocked nation is small in many ways, the most obvious of which is perhaps its physical area. Sixteen million people call this country, which is roughly the size of Nevada, home. As a whole, the population density is not terribly high; the problems begin when the local economy is factored in. Almost 90% of the country makes its living through subsistence agriculture, one of the highest rates in the world. Much of the soil, however, is poor in quality due to both natural factors and a lack of sustainable farming practices. Consequently, large numbers of people compete for the same land, so that high local population densities are common in many farming communities. Faced by continual poverty and high population growth throughout Africa, Burkinabè farmers have worked farms harder and longer in recent years, draining further the vital nutrients already depleted in the soil. The cycle is self-perpetuating: as soil quality degrades, farmers are forced to work the land harder to eke out a profit, so that the next year the farm produces even less.

Historically, many of the problems plaguing Burkina Faso have not been issues, or at least not ones so urgent. Past African farmers have been pioneers of agriculture, introducing techniques such as ***crop rotation***, in which land is left ***fallow*** for several seasons. But the realities of today's economy have taken a toll on these practices. Such realities

VOCABULARY

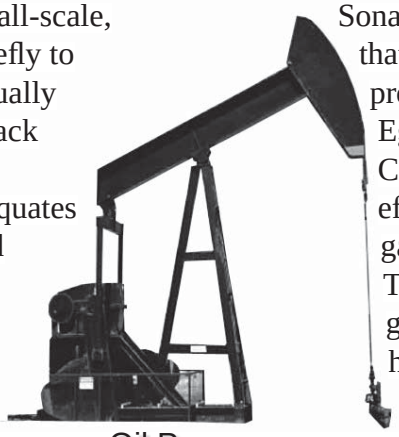
Crop rotation: the practice of growing dissimilar types of crops in the same area in sequential seasons
Fallow: unplowed and unseeded
Expatriate: person voluntarily absent from his or her home country
Husbandry: livestock breeding and raising

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

are part of the modern agricultural sector, which employs somewhere between 50 and 70% of the continent's population. As many as 96% of these are small-scale, subsistence farmers working chiefly to feed their families. It is an unusually high number and illustrates the lack of development in the region, as subsistence agriculture usually equates with developing or impoverished economies and low standards of living. In Africa, the correlation holds true: agriculture headlines the major industries list, but even those employed outside the farm are typically poor, underprivileged, and hungry.

Agriculture clearly dominates the economy of Africa, posting high numbers in all countries, albeit not as high as Burkina Faso's. The percentage of the workforce employed in agriculture is high across the board: more than 50% in Ghana, 80% in Ethiopia, and 80% in Angola. Although agriculture is a big component of total employment, it makes up a more modest cut of GDP, as even large-scale agriculture is not typically a high-dollar enterprise. As major manufacturing and service sectors are developed only in a few African cities, particularly in the far north and south, other activities often tend to build around a nation's or region's natural resources.

In North Africa, this means energy production. Libya rakes in huge tax receipts from its government-administered oil resources each year, and other nations have followed the trend. Algerian-owned oil company Sonatrach contributes 30% of that country's gross national product annually, while the Egyptian General Petroleum Corporation focuses strong efforts on extracting natural gas within Egypt's borders. Tunisia's rapid economic growth and privatization has occurred across many economic sectors, but primarily with oil. Yet other economic activities are proliferating. In Morocco, the government has developed an ambitious tourism promotion program, aiming to increase its already-strong share of the industry in North Africa. This has invigorated a thriving service sector, and standards of living have improved. In 2005-2006, Internet subscribership increased 73% over a twelve-month period. Mauritania also has a strong service industry, although it has not shown the same increase in GDP per capita as in Morocco.



Oil Pump

In the Sahara, the Sahel, and the plains below, mining activities have emerged. In Chad, 85% of the population is engaged in agriculture, but agriculture comprises only about 23% of GDP. Gold mining is critical here, while some regions in the south are speculated to hold good amounts of oil. Uranium is an important resource and economic activity here and in Niger, where it provides more than 70%

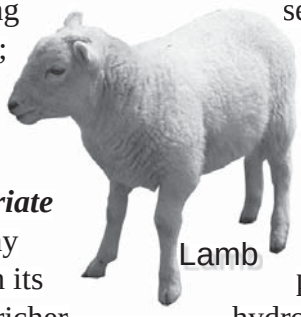


Kalgold Goldmine



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

of total exports. Both of these countries consider the United States an important trade partner. Food and energy continue to play a significant role here, as well. OPEC member Nigeria benefits heavily from its oil exports, many of which are shipped to Europe and the U.S., while also producing more food than any other country in Africa. Côte d'Ivoire employs about 70% of its population on farms producing bananas, palm oil, and coffee; Somalia counts livestock raising as an important activity, especially sheep and goats. Remittances by ***expatriate*** workers are important in many countries in this region, given its relatively close proximity to richer countries along the Mediterranean. Kenya relies heavily on agriculture and, to a lesser degree, on forestry. Along both eastern and western coasts, fishing is an important economic activity, though it is often undertaken on a subsistence basis rather than as a large-scale profit making operation.


Lamb

These activities largely continue throughout the lower half of Africa. Uganda is Africa's leading coffee producer, also liberally growing tobacco, tea, and sugar. Cotton is important in many countries, but its chunk of total economic output can fluctuate, as cotton crops are particularly sensitive to lack of rainfall. In Congo, the government offered a disproportionate number of jobs for the country's size until the 1990s, when the country rapidly scaled back its size to save money. Farming employs a majority of the population today, but oil is perhaps the biggest moneymaker. Tiny Rwanda and Burundi face many of the same problems as Burkina Faso: small territory, a high concentration of population involved in agriculture, and a lack of arable land. In both, 90% of the workforce labors on farms. Some manufactured goods come into play in Central Africa—goods like cement, soap, and soft drinks. Some industry is also related to food processing, served by the large numbers of people producing crops. Animal ***husbandry*** is important in some areas, as well. On the Tanzanian island of Zanzibar, cloves are the most important export. Malawi is the world's tenth-largest tobacco producer and also produces large amounts of energy hydroelectrically.

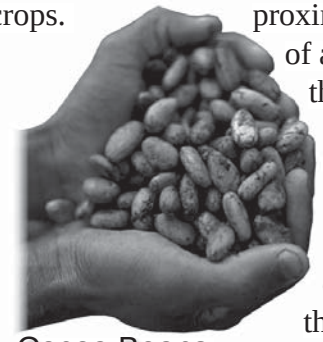

Harvesting Tea

Botswana and South Africa count mining as significant economic activities. In Botswana, jeweler De Beers operates extensively, mining from the world's richest diamond mines. South African prospectors also search for diamonds in large mines, but gold, copper, and other minerals are important contributors to the economy. Both countries' relative states of development have brought about a need for service and technology sector jobs, opportunities that have benefitted the region immensely. In South Africa, major car manufacturers operate plants that distribute throughout Africa and South Asia, and telecommunications companies like Virgin Mobile are finding more customers. Energy generation is also important, mostly of the fossil fuel variety, but with a sizeable nuclear market. Many neighboring countries, including Botswana, buy their power from electricity supplier Eskom. Tourism is quickly gaining headway on the economy in both these

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

places, as well as on islands like Zanzibar and Madagascar. South Africa has been successful at marketing its vibrant economy, picturesque shores, and wide range of terrain and landscapes to European and Western travelers.

Several trends can be observed throughout Africa. First, despite the fact that most of the African population is engaged in food production in some capacity, some countries still rely on imports to meet food needs. The reasons for this are many and varied. A lack of diversification and poor farming practices, or government policies, have seriously hampered certain farming regions, resulting in poor quality soil or crops. Unavailability of technology is another major hurdle. Africa's large population and vast land areas poise it to be a global leader in food production, and its citizens are not unwilling; rather, many work brutal, backbreaking hours to feed their families. But when poor, small-scale subsistence farmers do not have the animals needed to harvest their crops, or lack fertilizers to nourish them, little can be done to improve food quantities and quality. Nigeria is a case in point: the country used to be a major producer of cocoa beans, palm oil, and nuts, but farmers no longer produce large amounts. Additionally, its population has grown quickly, and the combination of all these factors has forced it to import many food items.


Cocoa Beans

Second, imports and exports often correspond somewhat to geographical location. In the north and west, many countries count European nations among their closest and most dynamic trade partners. Europe lacks any major oil resources, so for many countries, the closest place to purchase oil is in North Africa. The same is true of timber resources near the rainforest, which countries like Cameroon and Gabon ship to Europe. On the other side of the continent, trade with Asia is lively and growing. China and India are quickly emerging as major powers, and countries like Somalia and Eritrea are geographically primed for trade. A few larger countries buck the trend somewhat. Chad does hundreds of millions of dollars worth of business with the United States; Angola counts China as one of its main customers. Yet as a rule, geographic proximity is an important determinant of a nation's trade partners. Along these same lines, regional powers often do large amounts of trade with less powerful neighboring countries. In the south, for instance, South Africa is a main exporter to, and importer from, the weaker economies of Namibia, Zambia, and Malawi.

Life Principle

I hope I shall always possess firmness and virtue enough to maintain what I consider the most enviable of all titles, the character of an honest man.

- George Washington

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