1 Science and Technology Shape Human Outlook

TERMS & NAMES
- Hubble Space Telescope
- Internet
- genetic engineering
- cloning
- green revolution

MAIN IDEA
Advances in technology after World War II led to increased global interaction and improved quality of life.

WHY IT MATTERS NOW
The lives of all people around the world are affected by advances in science and technology.

SETTING THE STAGE Beginning in the late 1950s, the United States and the Soviet Union competed in the exploration of space. The Soviets launched Earth's first artificial satellite, *Sputnik I*, and put the first human in orbit around the planet. By the late 1960s, however, the United States had surpassed the Soviets. U.S. astronauts landed on the moon in 1969. The heavy emphasis on science and technology spilled over into developing products that improved the ways of life of human beings across the globe.

Probing the Solar System and Beyond

The space race of the 1950s, 1960s, and early 1970s was intensely competitive. Both the United States and the Soviet Union competed to reach the moon and beyond. Both nations developed manned and unmanned space programs. Although the space race was competitive, it carried the seeds of global cooperation. Orbiting spacecraft beamed back images of a small blue planet, Earth, floating like a jewel in the black void of space. People around the world who saw this view of Earth received a stirring reminder that though they lived in different countries, they all shared the planet. Eventually, space exploration became one of the world's first and most successful arenas for cooperation between U.S. and Soviet scientists.

Four U.S. astronauts and one Russian cosmonaut worked together in the Shuttle *Atlantis* cargo bay. They linked with the *Mir* space station.

Space Race Becomes Cooperative In 1972, more than 15 years before the end of the Cold War, the United States and the Soviet Union signed an agreement. Their goal was to work toward docking *Apollo* and *Soyuz* spacecraft in space. Not only did the American and Soviet staffs have to work out engineering problems, they also had to learn each other's language. On July 17, 1975, an American *Apollo* spacecraft docked with the Soviet *Soyuz 19* spacecraft 140 miles above Earth. As the astronauts opened the hatch connecting the space vehicles, TV viewers across the globe watched the crews from Earth's fiercest rival countries greet each other.

This first cooperative venture in space between the United States and the USSR was an isolated event. Over the next 15 years, American and Soviet space programs separately developed space shuttles. Unlike the *Apollo* spacecraft, these shuttles were reusable and could return to Earth under their own power. During the 1980s, shuttle missions put crews in orbit around Earth. The missions were designed to accomplish a variety of scientific and technological experiments. Colonel Frederick Gregory, a

SPOTLIGHT ON

Space Junk

Since the late 1950s, thousands of objects have been sent into orbit. Some of these objects have crashed to Earth. For instance, in 1962, a small piece of metal that was part of the Russian satellite *Sputnik IV* fell from the sky and landed on a street in a small town in Wisconsin.

Larger, more dangerous objects have fallen to Earth. Space hazards have included a one-ton tank from the U.S. space station *Skylab* and a nuclear reactor from a failed Soviet satellite.

Space junk is a hazard in space as well. For example, a floating paint chip cracked the outer window of a space shuttle. Scientists try to combat the dangers posed by space junk by tracking debris and designing their spacecraft carefully.

Spacelab 3 astronaut, observed, "I think that science is the stuff that pays for itself on these missions. It's going to improve the quality of life down here [Earth]."

Beginning in the 1970s and increasing in the 1980s, people from different countries worked together to explore space. The Soviets were the first to send an international crew into space. In 1978, they invited Czech astronaut Vladimir Remek to orbit Earth in *Soyuz 28*. In the mid-1980s, the U.S. space agency invited people from Saudi Arabia, France, Germany, and Mexico to fly on the space shuttle.

Both the Soviets and the Americans had launched and lived in space stations since the early 1970s. Since 1986, the Soviet-launched *Mir* space station has been orbiting over 200 miles above Earth. In the mid-1990s, the Russians invited a number of U.S. astronauts to spend time on board *Mir*. Back on Earth, American and Russian scientists worked with scientists from 13 other nations to design and construct the first International Space Station.

Exploring the Universe Helping to study planets of the solar system, unmanned space probes such as *Voyager 2* sent dazzling pictures of Jupiter, Saturn, Uranus, and Neptune back to Earth. The Soviet *Venera* and *Vega* spacecraft and the U.S. *Magellan* spacecraft gathered in-depth information about Venus. In 1997, the U.S. space agency landed the *Pathfinder* probe on Mars. The public was fascinated with pictures sent back to Earth that included the activities of a mechanical rover named *Sojourner*.

In 1986, several nations, including Japan and the Soviet Union, sent spacecraft to study Halley's Comet as it swung by Earth. The U.S. space agency, NASA, and the European space agency, ESA, worked together to make and launch the **Hubble Space Telescope** in 1990. This advanced tool is today observing objects in the most remote regions of the universe.

THINK THROUGH HISTORY
A. Hypothesizing Why might rival nations cooperate in space activities but not on Earth?

Background Before 1986, Halley's Comet was last seen in 1910. It reappears once every 76 years.

Space Goes Commercial Meanwhile, private companies have become increasingly involved in space. One company has even contracted to take over much of the U.S. space shuttle program. Some companies launch rockets and satellites that help search for minerals and other resources on Earth. Satellites also follow the weather, aid long-distance learning programs, and even guide cars through cities. In the future, companies may use the zero-gravity environment of space to manufacture perfect crystals. They may eventually send solar collectors into orbit to help generate electricity for Earth. However, the most common commercial use of space today and in the near future will probably remain in the field of communications.

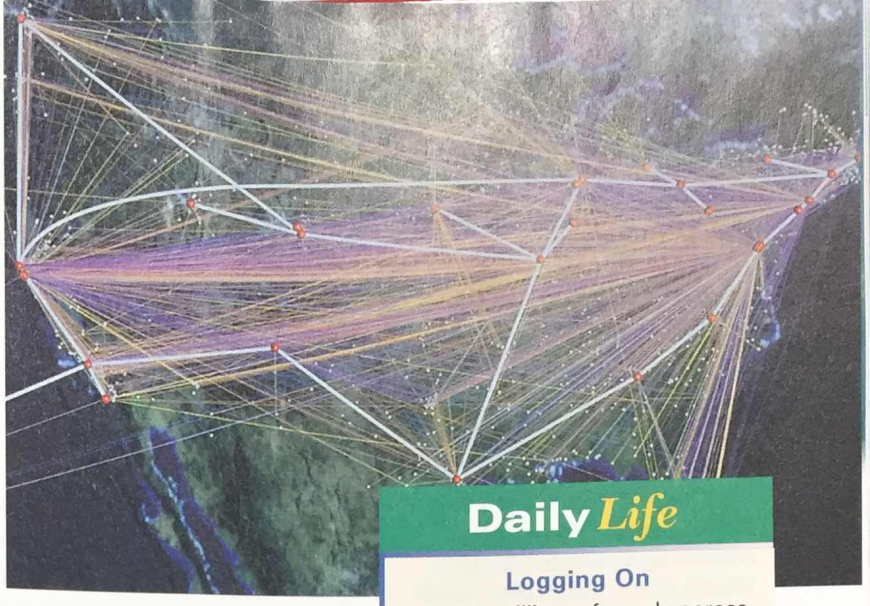
Expanding Global Communications

Since the 1960s, artificial satellites launched into orbit around Earth have aided worldwide communications. With satellite communication, the world was gradually transformed into a global village. Today, political and cultural events occurring in one part of the world often are witnessed live by people in other places. For example, in 1997, more than 2 billion television viewers across the world watched the funeral of Diana, the Princess of Wales. The linking of the globe through worldwide communications was made possible by the miniaturization of the computer.

Smaller, More Powerful Computers In the 1940s, when computers first came into use, they took up a huge room. The computer required fans or an elaborate air-conditioning system to cool the vacuum tubes that powered its operations. In the years since then, however, the circuitry that runs the computer had been miniaturized and made more powerful. This was due in part to the space program, where

equipment had to be downsized to fit in tiny space capsules. Silicon chips replaced the bulky vacuum tubes used earlier. Smaller than contact lenses, silicon chips hold millions of microscopic circuits.

Following this development, industries began to use computers and silicon chips to run assembly lines. A variety of consumer products such as microwave ovens, telephones, keyboard instruments, and cars today use computers and chips. Personal computers have become essential in most offices, and millions of people around the globe use personal computers in their homes.



Daily *Life*

Logging On

Each day millions of people across the world "log on"—link their computer with the Internet system, as shown in the diagram above. One study estimates that about 23 percent of people over age 16 in the United States and Canada use the Internet. People use the Internet to share information, to shop for hard-to-find products, and even for "virtual" travel.

The most common usage for the Internet is for sending and receiving electronic mail, or e-mail. With e-mail, people can communicate inexpensively anytime, anywhere in the world. By enabling people from all over the world to share ideas freely, the Internet helps people learn not just about topics of interest but also about each other.

Communications Networks Starting in the 1990s, businesses and individuals began using the Internet. The **Internet** is the voluntary linkage of computer networks around the world. It began in the late 1960s as a method of linking scientists so they could exchange information about research. Through telephone-line links, business and personal computers can be hooked up with computer networks. These networks allow users to communicate with people across the nation and around the world. Between 1994 and mid-1999, the number of worldwide Internet users soared from 3 million to 200 million.

Conducting business on the Internet has become a way of life for many. The Internet, along with fax machines, transmits information electronically to remote locations. Both paved the way for home offices and "telecommuting." Once again, as it has many times in the past, technology has changed how and where people work.

Transforming Human Life

Advances with computers and communications networks have transformed not only the ways people work but lifestyles as well. Technological progress in the sciences, medicine, and agriculture has changed the quality of the lives of millions of people.

Health and Medicine Before World War II, surgeons seldom performed operations on sensitive areas such as the eye, the inner ear, or the brain. Beginning in the 1950s, new technologies employed in advanced surgical techniques developed. More powerful microscopes and innovations such as the laser and ultrasound were among the improvements. For example, by the late 1970s, laser surgery to remove damaged lenses of the eye, such as lenses clouded with cataracts, was common. Such techniques made surgery safer and more accurate and improved patients' chances for quick recovery.

Advances in medical imaging also helped to improve health care. The use of CAT scans and MRI techniques gave doctors three-dimensional views of different organs or regions of the body. Using CAT scans and MRIs, doctors diagnose injuries, detect tumors, or collect other information needed to identify medical conditions.

In the 1980s, genetics, the study of heredity through research on genes, became a fast-growing field of science. Found in the cells of all organisms, genes are hereditary units that cause specific traits, such as eye color, in every living organism. Technology allowed scientists to isolate and examine individual genes that are responsible for different traits. Through **genetic engineering,** scientists were able to introduce new

genes into an organism to give that organism new traits. For example, with genetic engineering, scientists removed a gene from an Arctic fish and placed it in a plant. The resulting genetically engineered plant is better able to withstand frost.

Another aspect of genetic engineering is **cloning,** the creation of identical copies of DNA, the chemical chains of genes that determine heredity. Cloning actually allows scientists to reproduce both plants and animals that are identical to existing plants and animals. The applications of genetics research have led to many advances, especially in agriculture.

The Green Revolution In the 1950s, agricultural scientists around the world started a campaign known as the **green revolution.** It was an attempt to increase available food sources worldwide. Scientists promoted the use of fertilizers, pesticides, and high-yield, disease-resistant strains of a variety of crops. The green revolution helped avert famine in Asia and increased yields of crops in many different parts of the world.

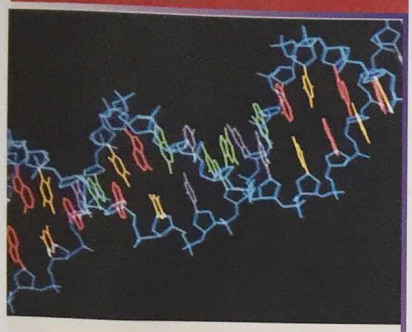
However, the green revolution had its negative side, too. Fertilizers and pesticides are dangerous chemicals that cause cancer and pollute the environment. Also, the cost of the chemicals and the equipment to harvest more crops was far too expensive for an average peasant farmer. Consequently, owners of small farms received little benefit from the advances in agriculture. In some cases farmers were forced off the land by larger agricultural businesses.

Advances in genetics research have helped to fulfill some of the goals of the green revolution. In this new "gene revolution," resistance to pests was bred into plant strains, reducing the need for pesticides. Plants bred to tolerate poor soil conditions also reduced the need for fertilizers. The gene revolution involved some risks, including the accidental creation of disease-causing organisms. However, the revolution also brought great promises for increasing food production in a world with an expanding population.

Science and technology has changed the lives of millions of people. In many cases quality of life has improved. What people produce and even their jobs have changed. These changes have altered the economies of nations. Not only have nations become linked through communications networks but they are also linked in a global economic network, as you will see in Section 2.

THINK THROUGH HISTORY
C. Summarizing
What are some of the positive and negative effects of genetic engineering?

SPOTLIGHT ON



The Human Genome Project

Human genetic material (DNA) contains approximately 50,000 to 100,000 genes. Researchers established the Human Genome Project to map out the thousands of genes contained in DNA—a feat they achieved in 2000.

The information has led to the development of a new field of medicine called "molecular medicine." This field focuses on how genetic diseases develop and progress. It has resulted in early detection of disease. Eventually, it may lead to individualized treatment based on a person's genetic makeup.

Misuse of this information could drastically alter society. Therefore, a part of the project includes investigation of the ethical, legal, and social issues raised by genetic engineering.

Section 1 Assessment

1. TERMS & NAMES

Identify
- Hubble Space Telescope
- Internet
- genetic engineering
- cloning
- green revolution

2. TAKING NOTES

Copy the chart below and fill in information on ways science and technology has changed human life.

Science and Technology Changes Lives		
Communications	Health and Medicine	Green Revolution

Which of the three areas do you think has had the greatest global effect?

3. FORMING AND SUPPORTING OPINIONS

What is your opinion about cloning? In your judgment, is there a limit to how far cloning should go? Support your opinion with reasons.

THINK ABOUT
- the Human Genome Project
- positive effects of cloning
- negative effects of cloning

4. ANALYZING THEMES

Science and Technology

Why do you think that space exploration became an arena for cooperation between the Soviet Union and the United States?

THINK ABOUT
- goals of space exploration
- technologies involved
- images of Earth from space

2 Global Economic Development

TERMS & NAMES
- developed nation
- developing nation
- global economy
- multinational corporation
- free trade
- Gulf War
- ozone layer
- sustainable development

MAIN IDEA
The economies of the world's nations are so tightly linked that the actions of one nation affect others.

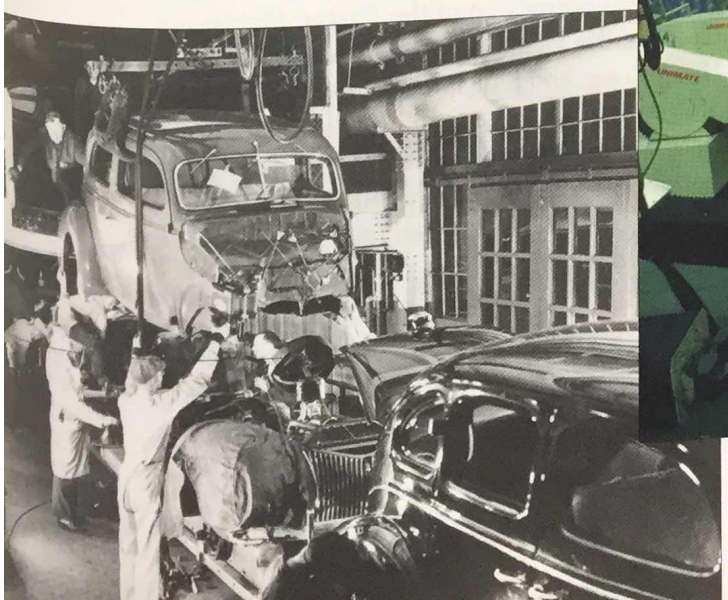
WHY IT MATTERS NOW
Every individual is affected by the global economy and the environment.

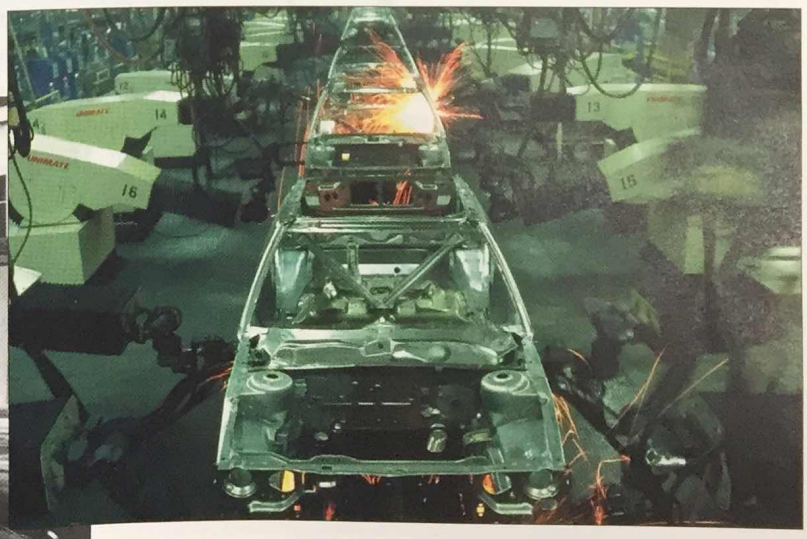
SETTING THE STAGE At the end of World War II, much of Europe and Asia lay in ruins, with many of the major cities leveled by bombing. The devastation of the war was immense. However, within a decade, with U.S. aid, the economies of western European nations and Japan began expanding rapidly. Their growth continued for half a century, long after the United States ceased supplying aid.

Technology Revolutionizes the World's Economy

Advances in technology caused economic growth in both Asia and the Western world. The explosion in scientific knowledge prompted great progress that quickly led to new industries. A prime example was plastics. In the 1950s, a process to develop plastics at low pressures and low temperatures was perfected. Within a few years, industries made toys, cooking utensils, containers, and a host of other products easily and cheaply out of plastics. The plastics industry boomed. Other technological advances have also changed industrial processes, lowered costs, and increased the quality or the speed of production. For example, robotic arms on automobile assembly lines made possible the fast and safe manufacture of high-quality cars.

Information Industries Change Economies Technological advances in manufacturing reduced the need for factory workers. But in other areas of the economy new demands were emerging. Computerization and communications advances changed the processing of information. By the 1980s, people could transmit information quickly and cheaply. Information industries such as financial services, insurance, market research, and communications services boomed. Those industries depended on what Professor Peter Drucker called "knowledge workers."





Car production has changed a great deal since the production of pre–World War II cars. Today, car assembly plants using efficient robots have eliminated jobs once done by people.

A VOICE FROM THE PAST

By the end of this century knowledge workers [people whose jobs focus on working with information] will amount to a third or more of the work force in the United States. . . . The majority of knowledge workers will be paid at least as well as blue-collar workers ever were, or better. And the new jobs offer much greater opportunities. . . . The new jobs . . . require a habit of continuous learning.

PETER DRUCKER, *Managing a Time of Great Change*

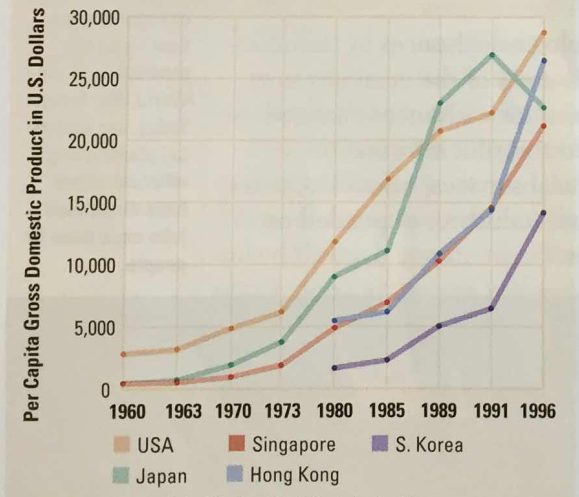
THINK THROUGH HISTORY
A. Recognizing Effects Why does Peter Drucker think education is the key to the future?

The Effects of New Economies In the postwar era the expansion of the world's economies led to an increase in the production of goods and services so that many nations benefited. The economic base of some nations shifted. Manufacturing jobs began to move out of **developed nations**—those nations with the industrialization, transportation, and business facilities for advanced production of manufactured goods. The jobs moved to **developing nations,** that is, those in the process of becoming industrialized. Developing countries became prime locations for new manufacturing operations. Some economists believe these areas were chosen because they had many eager workers whose skills fit manufacturing-type jobs. Also, these workers would work for less money than those in developed nations. On the other hand, information industries that required better-educated workers multiplied in the economies of developed nations. The changes brought by technology changed the workplace of both developed and developing nations.

The Growth of Japan and the Pacific Rim

The Japanese began adopting modern technologies from Europe in the mid-1800s, during the Meiji era. After World War II, they continued to import and adapt the best of Western technology. For example, the Sony Corporation of Japan bought the rights to manufacture transistors, which are the basis for all electronic equipment, from an American company. Within 20 years, Sony had built a business empire based on the transistor. The company manufactured radios, stereo equipment, and televisions.

Growth in East Asia



Source: *United Nations World Statistics in Brief,* 1976, 1986, 1992, 1995.

SKILLBUILDER: Interpreting Graphs

1. *Which country showed the most dramatic growth in the period from 1985 to 1991?*
2. *Which countries in 1985 were at the level of South Korea in 1991?*

The emphasis that the Japanese and other people from Asia's Pacific Rim have placed on education has made their work force knowledgeable, creative, and flexible. This helped the region enjoy amazing economic growth from the 1950s to the present. Japanese corporations produce high-quality cars, electronic goods, and ships. The success of Japanese corporations fueled the country's high economic growth rate of 10 percent per year from 1955 through 1970. In the 1990s, averaging between 3 and 4 percent annually, Japan's growth was above that of the United States.

Background
Pacific Rim refers to lands of Southeast Asian mainland and islands along the rim of the Pacific Ocean.

Four places in the Pacific Rim—South Korea, Taiwan, Hong Kong, and Singapore—followed Japan's example. In the 1970s, they set out on programs of rapid industrialization designed to make their economies both modern and prosperous. South Korea became a major exporter of automobiles and of electronic goods. Hong Kong became a world financial center. These four newly industrialized countries recorded such impressive economic growth that they became known as the Four Tigers of Asia. In the 1990s, rapidly industrializing China and Malaysia began competing with the other nations of the Pacific Rim. With Japan, the Four Tigers, China, and Malaysia, the Pacific Rim became a key arena of world trade.

THINK THROUGH HISTORY
B. Analyzing Causes Why would the Four Tigers follow Japan's example in developing their economies?

Growth in World Trade

Economies in different parts of the world have been linked for centuries through trade and through national policies, such as colonialism. However, a true global economy didn't take shape until the second half of the 1800s. The **global economy** includes all the financial interactions among people, businesses, and governments that cross international borders. In recent decades, several factors hastened growth in world trade. Huge cargo ships, the length of three football fields, could inexpensively carry enormous supplies of fuels and other goods from one part of the world to another. Telephone and computer linkages made global financial transactions quick and easy. In addition, multinational corporations developed around the world.

THROUGH HISTORY
mmarizing
elements accel- global trade?

Multinational Corporations Companies that operate in a number of different countries are called **multinational corporations** or transnational corporations. U.S. companies such as Ford, IBM, and Exxon; European companies such as Nestlē and Volvo; and Japanese companies such as Honda and Mitsubishi all became multinational giants.

All of these companies have established manufacturing plants in many countries. They select spots where the raw materials or labor are cheapest. This enables them to produce components of their products on different continents. They ship the various components to another location to be assembled. This level of economic integration allows such companies to view the whole world as the market for their goods. Goods or services are distributed throughout the world as if there were no national boundaries.

Expanding Free Trade After World War II, many national leaders felt that economic cooperation among countries across the world would be key to peace and prosperity. The idea of **free trade,** which is the elimination of trade barriers such as tariffs among nations, began to gain acceptance. As early as 1947, nations began discussing ways to open trade. One such agreement was GATT—General Agreement on Tariffs and Trade. Over the years, a general lowering of protective tariffs and an expansion of free trade, region by region, has expanded the global marketplace. By 1995, the World Trade Organization was established to supervise free trade.

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A European organization set up in 1951 promoted tariff-free trade among member countries. This experiment in economic cooperation was so successful that seven years later, a new organization, the European Economic Community (EEC), was formed. Over the next 40 years, most of the other Western European countries joined the organization, which now is called the European Union (EU). In another example of economic cooperation, 11 European nations began using a unified currency, known as the euro, on January 1, 1999.

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irst products to riff-free were and coal. This ed the countries lop their stries.

Regional Trade Blocs Through this economic unification, Europe exerted a major force in the world economy. The economic success of the EU inspired countries in other regions to make trade agreements with each other. The North American Free Trade

World Car

Same design used in cars sold in North and South America, Europe, and Asia, but sold under different company names

GEOGRAPHY SKILLBUILDER: Interpreting Maps

1. **Location** *Which countries in OPEC are located outside of Southwest Asia?*
2. **Location** *To which world trade organizations does the United States belong?*

Agreement (NAFTA), put into effect in 1994, called for the rapid elimination of tariffs and trade restrictions among Canada, the United States, and Mexico. This trade-barrier-free zone may eventually extend into other parts of Latin America, which already has its own free trade association, LAFTA. Organizations in Asia, Africa, and the South Pacific are also creating regional trade policies.

Multinational corporations, freer world trade, and regional trading blocs today tie nations together economically. Instead of two nations trading with each other exclusively, trade links many nations. Resources, work forces, and financial support for business and trade come together from many areas of the world. Just how closely linked international economies are was demonstrated in late 1997. In October of that year, the dramatic fall of the Hong Kong stock market caused a ripple effect in markets in Asia, Europe, and North America. The losses were so severe that it would not be until 1999 that the struggling economies of Asia began to recover.

THINK THROUGH HISTORY

D. Forming an Opinion Which of the elements of global trade do you think was most responsible for expanding world trade?

Challenges Facing Less-Developed Nations

Less-developed nations wanting to expand their economies face many challenges. Many people in the less-developed nations live in grinding poverty. On average, people in these nations receive only one-twentieth the income of people in the developed nations. They may lack adequate shelter, a source of clean drinking water, or food for nourishment. Diseases weaken many, and health care is often unavailable. Such poverty can lead to political instability, which affects not only the nation but also the rest of the world.

Many world leaders believe that the less-developed nations can ease the burden of poverty for their people only by economic development. Some economists have encouraged less-developed nations to assess their resources and to make long-term economic plans. Some also argue that developed nations need to assist the developing nations to climb out of poverty. A report issued by an international commission observed, "Peace, stability, and human justice around the globe depend on how well nations cooperate to help people in all lands share in the earth's resources and wealth."

THINK THROUGH HISTORY
E Summarizing
What challenges do developing nations face in improving their economies?

Impacts of Economic Development

Global development has had a variety of effects, both positive and negative. It brought manufacturing jobs to developing nations. However, as industries moved out, it reduced manufacturing jobs and raised unemployment in developed nations. Global development had an even larger impact on the use of energy and other resources. Worldwide demand for these resources has led to both environmental and political problems.

Political Impacts Manufacturing requires the processing of raw materials; trade requires the transport of finished goods. These activities, essential for development, require the use of much energy. For the past 50 years, one of the main sources of energy used by developed and developing nations has been oil. For nations with little of this resource available in their own land, disruption of the distribution of oil or a large price increase causes economic and political problems. Nations possessing oil reserves have the power to affect economic and political situations in countries all over the world. For example, OPEC declared an oil embargo—a ban on trade—in the 1970s. This caused significant economic decline in developed nations during that decade.

Background
The Middle East contains 62 percent of all known oil resources.

In 1990, Iraq invaded Kuwait and threatened to stop the distribution of Kuwaiti oil. Fears began to mount that Iraq would also invade Saudi Arabia, another major source of oil, and cut off petroleum supplies to the world. When an international economic embargo failed to change Iraq's behavior, countries of the United Nations moved to wage war on Iraq. The war was known as the Persian Gulf War or **Gulf War.** The war served to point out how globally linked the economies of nations are.

Water is another important resource required for many manufacturing processes. It is also essential for agricultural irrigation. In many parts of the world, nations increasingly came into conflict over the use and maintenance of water resources. Poor quality water resources became one of many serious threats to the environment resulting from economic development.

Environmental Impacts Economic development also threatens the environment. The burning of coal and oil as an energy source causes health-damaging air pollution and acid rain. It has led to global warming.

The release of chemicals called chlorofluorocarbons (CFCs), used in refrigerators, air conditioners, and manufacturing processes, has destroyed ozone in the earth's upper atmosphere. The **ozone layer** is our main protection against the sun's damaging ultraviolet rays. With the increase in ultraviolet radiation reaching the earth's surface, the incidence of skin cancer continues to rise in many parts of the world. Increased ultraviolet radiation may damage populations of plants and plankton at the bases of the food chains, which sustain all life on Earth.

Background
Scientists have discovered a hole in the ozone layer in an area above the continent of Antarctica. Ozone in this location has dropped to 33 percent of the 1975 amount.

GlobalImpact

Allies Protect Oil Supplies

A perfect example of how the nations of the world depend on each other was the Gulf War. Iraq threatened to cut off supplies of oil from Kuwait and other parts of the Middle East. This threatened the U.S. and European nations; Japan, which imports almost all of its oil; and other Asian and African countries. Nations worked together against Iraq to stop that threat.

The Gulf War, also known as "Operation Desert Storm," included 700,000 troops from 39 Allies and around 500,000 Iraqi troops. One concern of the Allies was to keep the narrow Straits of Hormuz open for oil tankers. Within three months, the out-gunned Iraqis accepted a cease-fire.

While the supplies of oil were made safe, the war resulted in great environmental damage. More than 465 million gallons of oil were dumped into the Persian Gulf.

Daily *Life*

Recycling

The children above in Seoul, South Korea, are celebrating Earth Day by promoting recycling. People in many countries recycle paper, glass, metals, and plastics through community recycling programs. One of the most popular items to recycle is cans. Two-thirds of all aluminum cans used in the United States are recycled.

In Great Britain, the government has called for the expanded use of recycled paper. The goal for the near future is that newsprint be made of at least 40 percent recycled paper fibers. One new paper recycling plant may help Britain meet that ambitious goal. This recycling plant is so environmentally friendly that the water it releases from the paper recycling process is cleaner than the river into which the water is discharged.

Economic development has also often involved the deterioration of the land. Large-scale soil erosion is a worldwide problem due to damaging farming techniques. The habitat destruction that comes from land development has also caused the shrinking of numbers of wildlife around the world. In the 1990s the extinction rate of plants and animals is at least a hundred times greater than it ever has been in earth's history. This high extinction rate means that these animals can no longer serve as an economic resource. The loss of so many species also could endanger complex and life-sustaining processes that keep earth in balance.

"Sustainable Growth" Economists and scientists worked together to think of ways to reduce the negative effect development has on the environment. Their goal is to manage development so that growth can occur, but without destroying air, water and land resources. The concept is sometimes called "green growth." Economist Frances Cairncross suggests that completely reducing negative effects on the environment will not happen.

A VOICE FROM THE PAST

Many people hope that economic growth can be made environmentally benign [harmless]. It never truly can. Most economic activity involves using up energy and raw materials; this, in turn, creates waste that the planet has to absorb. Green growth is therefore a chimera [impossible idea]. But greener growth is possible.

FRANCES CAIRNCROSS, *Economic Growth and Sustainable Development*

THINK THROUGH HISTORY
F. Clarifying What does Frances Cairncross mean by "greener growth is possible"?

Economic development has frequently led to huge environmental damage. Because of this, people around the world have come together at Earth Summits to try to formulate plans for sustainable development. **Sustainable development** involves two goals: meeting current economic needs, while ensuring the preservation of the environment and the conservation of resources for future generations. Making and putting into practice these plans has proved to be difficult. But meeting both goals is essential for the future of the human population on earth. Because economies of nations are tied to their political climates, such development plans will depend on the efforts of nations in both economic and political areas.

Section 2 Assessment

1. TERMS & NAMES

Identify
- developed nation
- developing nation
- global economy
- multinational corporation
- free trade
- Gulf War
- ozone layer
- sustainable development

2. TAKING NOTES

Using a diagram like the one below, list examples of forces that have shaped a global economy.

3. RECOGNIZING EFFECTS

In what ways has technology changed the workplace of people across the world?

THINK ABOUT
- the kinds of industries people work in
- the location of the workplaces
- the speed at which work is done

4. THEME ACTIVITY

Economics Make a survey of the labels on class members' clothing and shoes. Look for the countries in which clothing or shoes were produced. List all the countries represented. On a world map, shade in each of the countries you listed. What does the information suggest to you about the global economy?

3 Global Security Issues

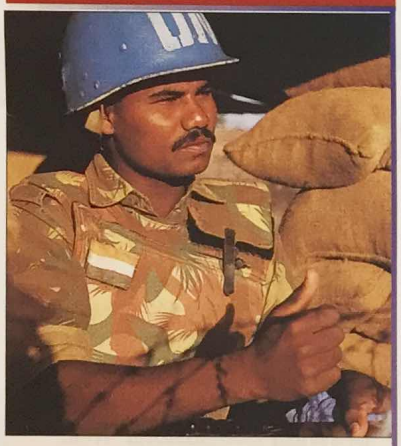
TERMS & NAMES
- Nuclear Non-Proliferation Treaty
- proliferation
- terrorism
- fundamentalism
- Universal Declaration of Human Rights
- civil rights movement

MAIN IDEA
Since 1945, nations have used collective security efforts to solve problems.

WHY IT MATTERS NOW
Personal security of the people of the world is tied to security within and between nations.

SETTING THE STAGE World War II was one of history's most devastating conflicts. More than 55 million people died as a direct result of bombings, the Holocaust, combat, starvation, and disease. Near the end of the war, one of humankind's most destructive weapons, the atomic bomb, killed more than 100,000 people in Hiroshima and Nagasaki in a matter of minutes. Perhaps because of those horrors, since 1945, powerful nations have repeatedly stepped back from the brink of destruction that could result from another all-out world conflict.

SPOTLIGHT ON



UN Peacekeepers
Soldiers in blue helmets, such as the one pictured above, have been sent on peacekeeping missions all over the world. They come from dozens of different nations, from Finland to Senegal, from Canada to Pakistan. As neutral soldiers they are sent to enforce peace in troubled areas.

Some missions have lasted for decades, such as the 40-year UN mission to monitor the cease-fire agreement between India and Pakistan. Other UN missions are brief. The 1962–1963 UN mission to New Guinea lasted for six months.

Some UN missions are successful in their goal of preventing the continuation of conflict, but others fail. Both kinds of missions have proved costly. More than 1,450 peacekeepers have died in the line of duty.

Nations Pursue Collective Security

In the decades since the end of World War II, the number of limited wars throughout the world increased. Such wars potentially threatened the economic, environmental, and personal security of people in all nations. So nations began to work together to pursue collective security.

Background
A limited war is one in which only a few nations are involved and nuclear weapons are not used.

Nations Unite and Take Action Many nations consider that having a strong army is important to their security. After World War II, nations banded together to make military alliances. They formed the North Atlantic Treaty Organization (NATO), the Southeast Asian Treaty Organization (SEATO), the Warsaw Pact, and others. The member nations of each of these alliances generally consider an attack on one of them to be an attack on them all. Thus, they each pledged military aid for their common defense.

In addition to military alliances to increase their security, world leaders have recognized that threats of war needed to be reduced. The United Nations (UN), an international agency established in 1945, works in a variety of ways toward increasing collective global security.

Peacekeeping Activities More than 180 nations send representatives to the UN, which has as one of its aims to promote world peace. The UN provides a public forum, private meeting places, and skilled mediators to help nations try to resolve conflicts at any stage of their development.

The UN also provides peacekeeping soldiers at the invitation of the warring parties. These forces try to prevent the outbreak of new fighting or to help enforce a cease-fire. The unarmed or lightly armed soldiers fire their weapons only in self-defense. The presence of neutral UN soldiers helps prevent aggression. In the late 20th century, the UN sent successful peacekeeping forces to such places as El Salvador in Central America, Kuwait in the Middle East, and Namibia in Africa. The UN, however, was successful only when the nations involved in a conflict maintained a commitment to working things out peacefully.

Controlling Weapons of Mass Destruction Nations have not only worked to prevent and contain conflicts, they also have forged treaties to limit the manufacturing, testing, and trade of weapons. The weapons of most concern are those that cause mass destruction. These include nuclear, chemical, and biological weapons that can kill thousands, even millions of people.

In 1968, many nations signed a **Nuclear Non-Proliferation Treaty** to help prevent the **proliferation,** or spread, of nuclear weapons to other nations. In the 1970s, the United States and Russia signed the Strategic Arms Limitation treaties. In the 1980s, both countries talked about deactivating some of their nuclear weapons. However, in the early 1990s, ten nations still possessed nuclear weapons. Many nations also signed treaties promising not to produce biological or chemical weapons.

Terrorism Threatens Security On September 11, 2001, the United States faced its most direct threat from terrorist attack when 19 terrorists hijacked four commercial airplanes. Two planes struck the twin towers in the World Trade Center in New York City. The attack destroyed the towers and several other buildings, blanketed the lower section of Manhattan in ashes, and killed approximately 3,000 people. A third plane damaged the Pentagon and left about 200 dead. The fourth plane, presumed to be headed for another target in the nation's capital, crashed into an empty Pennsylvania field.

This attack was the deadliest in a series of terrorist attacks that have claimed the lives of many innocent civilians over the past decade. In April 1995, an American opposed to the power of the U.S. government planted a bomb near the Murrah Federal Building in Oklahoma City, Oklahoma, killing more than 160 people. A month earlier, a Japanese cult member released nerve gas in a Tokyo subway, killing 12 people and injuring thousands.

These tragedies are examples of **terrorism,** the use of force or threats to frighten people or governments into changing their policies. Terrorism is a tactic used by ideological or political groups to call attention to their goals and to gain major media coverage. The global uses of modern technology and air travel make every nation vulnerable to attacks. Because terrorists cross national borders to escape to countries friendly to their cause, terrorism is an international problem. After the September 2001 attacks in New York City, the United States called for an international effort to combat terrorist groups.

Smoke billows from the World Trade Center buildings after the terrorist attack of September 11, 2001.

THROUGH HISTORY
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Ethnic and Religious Conflicts Disrupt Peace

Conflicts among people of different racial, national, religious, linguistic, or cultural groups are not new. Some struggles have roots that reach back for decades and, in some cases, for centuries. Such conflicts include the clash between Protestants and Catholics in Ireland and between Palestinians and Jews in the Middle East.

Some ethnic conflicts have deep historical causes, such as the Serb-Bosnian-Croat disputes in former Yugoslavia. Once an authoritarian rule or colonial government is gone, these old problems flare into violent battles. Such conflicts often create thousands of refugees who seek shelter in nearby lands.

Religious Conflicts The growth of **fundamentalism**—a strict belief in the basic truths and practice of a particular faith—also has contributed to conflicts, including acts of terrorism, among different peoples. In some cases, fundamentalist groups have gained control of a government and imposed their ideas on an entire nation. For example, in 1997, the Taliban movement in Afghanistan took control of that country after a long civil war. The leaders imposed their own strict Muslim law on the land.

SPOTLIGHT ON

Kurds: A People Without a Country

The Kurds, a nomadic people, follow their herds through the mountains and high plateaus of eastern Turkey, western Iran, and northern Iraq, shown in red on the map. For decades, Kurds have wanted their own separate country. But because their traditional lands cross the borders of three nations, it is a thorny problem.

The Turks have responded to Kurdish nationalism by forbidding Kurds to speak their native language. The Iranians have also persecuted the Kurds, attacking them over religious issues. In the late 1980s, the Iraqis dropped poison gas on the Kurds, killing 5,000.

The Kurds have received support from a number of international organizations, including the United Nations. These groups are working to end the human rights abuses heaped upon the Kurds.

Ethnic and religious conflicts have often been characterized by terrible violence. People caught in these conflicts sometimes suffered torture or massacres of their whole towns or villages. An example of this is violence imposed on the Kurds, a nomadic group in southwest Asia. (See spotlight on Kurds.)

As violence escalates, communication between the conflicting groups shuts down. The Buddhist leader of Tibet, the Dalai Lama, argued that opening communication is the key to understanding differences and resolving conflicts.

A VOICE FROM THE PAST

The various religions must recognize their common responsibility. Therefore it is important that they live together and speak to each other in harmony. Certainly there is a great deal of difference between the religions. But if people openly approach each other wishing sincerely to exchange views and learn from each other they will discover that they are in agreement on many things. A large common basis, I am sure, could be found. The religions could devote this basis to the service of the world's positive development.

DALAI LAMA, quoted in *Global Trends: The World Almanac of Development and Peace*

THINK THROU
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While some have tried to find common ground through religion to ease conflict, others try to gain wide international guarantees of basic human rights.

Promoting Human Rights Worldwide

After the atrocities of the Holocaust in World War II, the newly formed United Nations resolved to work toward guaranteeing basic human rights for persons of all nations.

UN Issues a Declaration In 1948, to set human rights standards for all nations, the UN drew up and ratified the **Universal Declaration of Human Rights.** The declaration stated, "All human beings are born free and equal in dignity and rights. . . . Everyone has the right to life, liberty, and security of person." It further listed specific rights that all human beings should have. Later, in 1975, the Helsinki Accords addressed the issues of freedom of movement and freedom to publish and exchange information.

Both the declaration and the accords are nonbinding. But many people around the world became committed to ensuring that basic human rights are respected. The UN and other international nonprofit agencies, such as Amnesty International, work to track and publicize human rights violations. They also encourage people to work toward a world in which liberty and justice are available for all.

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The American Civil Rights Movement The people of the United States made greater commitments to ensuring basic human rights, especially political rights, to its citizens through the civil rights movement. The **civil rights movement** was a grassroots effort by African Americans to fight discrimination and to make sure all citizens received their rights guaranteed by the U.S. Constitution. During the 1960s, the movement focused on eliminating legal segregation between African Americans and whites. Another goal was to fully empower African Americans with the right to vote and with equal public education.

During the 1950s and 1960s, thousands of Americans, both African Americans and others, organized groups and worked to change the conditions in the United States. One of the best-known leaders of the civil rights movement was Dr. Martin Luther King, Jr. Dr. King patterned his movement after Gandhi's in India, using nonviolent demonstrations to bring attention to serious injustices suffered by African Americans.

After King's assassination in 1968, people of all races and creeds continued to work to eliminate discrimination in employment, housing, and other key areas of life. The civil rights movement fueled the development of other equal rights movements by Native Americans, Hispanics, women, and people with disabilities.

Women's Status Improves

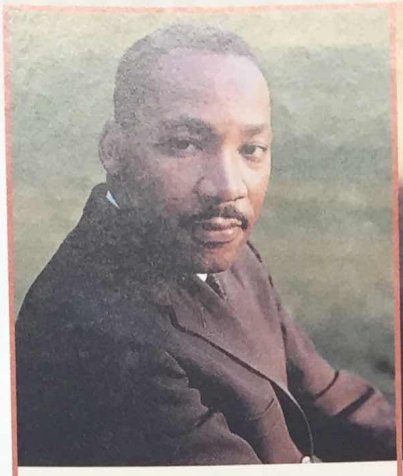
The women's rights movement grew along with the civil rights movement in the late 1950s and early 1960s. When women in Western nations entered the work force, they often met with discrimination in employment and salary. In non-Western countries, many women not only faced discrimination in jobs, they were denied access to education. In regions torn by war or ethnic conflict, they were often victims of violence and abuse. As women suffered, so also did their family members, especially children.

However, in the 1970s, with a heightened awareness of human rights, women in various parts of the world worked to improve their lives through changes in laws and government policies. In 1975, the United Nations held the first of several international conferences on women's status in the world. The fourth conference was held in Beijing, China, in 1995. It addressed such issues as preventing violence against women and empowering women to take leadership roles in politics and in business.

One of the most highly respected activists who attended the Beijing conference was the Albanian missionary Mother Teresa. She devoted her life to caring for the poor and sick. In 1979, Mother Teresa was awarded the Nobel Peace Prize for her efforts on behalf of the homeless on the streets of Calcutta, India. Although she died in 1997, her mission continues to reach more than 25 countries worldwide.

THINK THROUGH HISTORY
C. Recognizing Effects How did Mother Teresa influence social conditions in the world?

HISTORYMAKERS



Dr. Martin Luther King, Jr.
1929–1968
Nobel Peace Prize 1964

Dr. Martin Luther King, Jr.'s moving speeches and his commitment to active, nonviolent protest inspired people around the world. He urged them to work to end racial discrimination and toward obtaining full and equal rights for all. In his famous "I Have a Dream" speech, King urged his followers, "*Now* is the time to lift our nation from the quicksands of racial injustice to the solid rock of brotherhood."

King achieved many successes as he led a nationwide movement, organizing marches and sit-ins to demand equal justice before the law. In 1964 and 1965, the U.S. federal government passed laws protecting civil and voting rights.

During the civil rights struggles, Dr. King's home was dynamited and he and his family faced death threats. He was assassinated on April 4, 1968, in Memphis, Tennessee.

Mother Teresa
1910–1997
Nobel Peace Prize 1979

A tiny woman of boundless energy, Mother Teresa dedicated her life to helping the poor, the elderly, the disabled, and the dying. Born Agnes Gonxha Bojaxhiu, Mother Teresa joined a convent in Ireland at the age of 18. A few months later, she headed to Calcutta, India, to teach at a girls' school. Upon her arrival, she noticed many sick and homeless people in the streets. She soon vowed to devote her life to helping India's poor.

In 1948, she established the Order of the Missionaries of Charity, which committed itself to serving the sick, needy, and unfortunate. Dressed often in her trademark outfit of a plain white sari with a blue border and a cross pinned to her left sleeve, Mother Teresa soon became known throughout the world for her commitment to the downtrodden.

Global Movement of People

Migration is a worldwide phenomenon that has increased in size and scope. Each year poverty, war, drought, famine, and political violence affect millions of people. To escape these life-threatening problems, many people leave their homes and migrate to other countries. Wealthy people sometimes migrate as well. In the late 1980s, some businesspeople left Hong Kong, fearing that after the Chinese regained control of the island from the British in 1997, their rights and opportunities would be limited.

Push-Pull Factors Migration sometimes takes place because people feel pushed out of their homelands. Lack of food due to drought, natural disasters, and political oppression are examples of push factors. Between 1976 and 1996, the number of refugees—people who leave their country to move to another to find safety—grew from under 3 million to almost 20 million yearly.

Not only negative events push people to migrate. Most people have strong connections to their home countries and don't leave unless strong positive attractions pull them away. They hope for a better life for themselves and for their children, and thus migrate to developed nations. For example, hundreds of thousands of people migrate from Africa to Europe and from Latin America to the United States every year. Sometimes the poorest people migrate, but often educated middle-class people migrate.

THINK THROUGH HISTORY
D. Analyzing Causes List the push and pull factors that cause people to migrate.

Effects of Immigration Immigration has both negative and positive effects on the countries receiving new people. Countries generally receive two types of immigrants—political refugees and migrants who come for economic reasons. Although a person has the right to leave a country, the country receiving the migrant does not have to accept that person. The receiving country may have one policy about accepting refugees from political situations, and another about migrants coming for economic reasons. Because of the huge volume of people migrating from war-torn, famine-stricken, and politically unstable regions, millions of immigrants have no place to go. Crowded into refugee camps under squalid conditions, immigrants face a very uncertain future. The cost of supporting these camps may cause political problems and may raise issues of prejudice and discrimination.

On the positive side, immigrants are often a valuable addition to the country where they move. They help offset labor shortages in a variety of industries. They bring experiences and knowledge that can spur the economy. In addition, they contribute to the sharing, shaping, and blending of a newly enriched culture.

Cuban boat people plead for help from a helicopter about 50 miles from Key West, Florida. Some left Cuba because of political differences, while others were looking for a better economic future.

Section 3 Assessment

1. TERMS & NAMES

Identify
- Nuclear Non-Proliferation Treaty
- proliferation
- terrorism
- fundamentalism
- Universal Declaration of Human Rights
- civil rights movement

2. TAKING NOTES

Using a chart like the one below, list collective methods employed by the nations of the world to increase world security. Give examples.

Method	Examples
1. Form military alliances	NATO, SEATO, Warsaw Pact
2.	
3.	

3. IDENTIFYING PROBLEMS

How are ethnic and religious conflicts related to problems of global security?

THINK ABOUT
- current conflicts
- political/ideological tactics of groups
- immigration

4. ANALYZING THEMES

Science and Technology In what ways have advances in science and technology increased threats to global security?

THINK ABOUT
- the destructive capability of one nuclear weapon
- the ability of less-powerful nations to produce biological or chemical weapons
- the ability to move easily across international borders

4 Cultures Blend in a Global Age

TERMS & NAMES
- popular culture
- materialism
- accommodation

MAIN IDEA
Technology has increased contact among the world's people, changing their cultures.

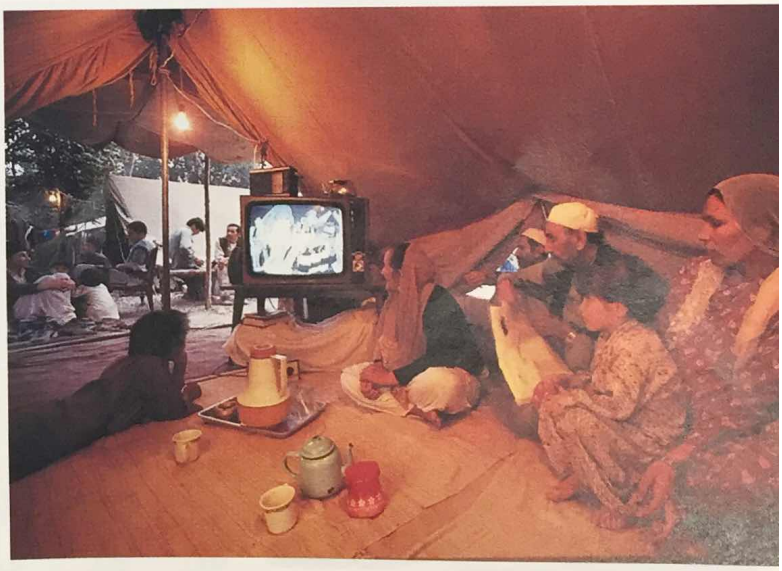
WHY IT MATTERS NOW
Globalization of culture has changed the ways people live, their perceptions, and their interactions.

SETTING THE STAGE Since the beginnings of civilization, people of every culture have blended ideas and ways of doing things from other cultures into their own culture. The same kind of cultural sharing and blending continues today. But it occurs at a much more rapid pace and among people at much wider distances than ever was common in the past.

The Sharing of Cultures Accelerates

The speed and breadth of today's cultural exchanges is due to advances in technology. Twentieth-century technologies allow people from all over the world to have increasing contact with one another. Such contacts promote widespread sharing of cultures.

Cultural elements that reflect a group's common background and changing interests are called popular culture. **Popular culture** involves music, sports, movies, clothing fashions, foods, and hobbies or leisure activities. Popular culture around the world incorporates features originating in many different lands. Of all the technologies that contribute to cultural sharing, television, movies, and other media have been the most powerful.



A family in Afghanistan enjoys watching cartoons on the family TV.

Television and Mass Media More people in the United States have televisions than telephones. In fact, 98 percent of American households have televisions. Eighty-eight percent of the homes have videocassette recorders (VCRs). In Europe, too, the vast majority of households include one or more televisions. The percentages are lower for developing nations. Nevertheless, in many of these countries, the television is a family's most cherished or most wished-for possession.

Television provides a window to the world through daily newscasts and documentaries. The speed at which information about other parts of the world is presented helps create an up-to-the-minute shared experience of global events. For example, in 1991, millions of television viewers across the world watched the waging of the Persian Gulf War. Wars, natural disasters, and political drama in faraway places become a part of everyday life.

Television and other mass media, including radio and movies, are among the world's most popular forms of entertainment. Popular programs not only entertain but also show how people live and what they value in other parts of the world. Mass media is the major way popular culture spreads to all parts of the globe.

International Elements of Popular Culture The entertainment field, especially television, has a massive influence on popular culture. People from around the world are avid viewers of American TV programs. In India, *M*A*S*H* reruns are a huge hit. One U.S. business consultant conducted a meeting on cotton plantations in a remote part of northern China. The consultant said the 22 managers attending excused themselves at six o'clock in the evening and returned about an hour later. The American thought the farmers might have had other visitors or another important meeting to attend. When asked, they replied, "No. It was *Dallas* [a rerun of a famous 1980s evening soap opera] on television."

Broadcasts of international sporting events and the popularity of many team sports have found fans of soccer, cycling, and basketball all over the globe. Some figures from these sports attain worldwide fame. For example, a survey of teens in 44 countries of the world revealed that 93 percent recognized the Chicago Bulls logo. Broadcasts of the Olympics attract audiences of over 200 million from around the world.

Music is another aspect of popular culture that has become international. As the equipment for listening to music has become more portable, there are only a few places in the world that do not have access to music from other cultures. People from around the world dance to reggae bands from the Caribbean, chant rap lyrics from the United States, play air guitar to rowdy European bands, and enjoy the fast drumming of Afropop tunes. They might even sing to any of this music using a karaoke machine, which comes from Japan. Recording artists and groups often gain international fame.

THINK THROUGH HISTORY
A. Recognizing Effects What effects have television and mass media had on popular culture?

SPOTLIGHT ON

International Baseball

The sport of baseball is an example of global popular culture. When American missionaries and teachers arrived in Japan in the 1870s, they introduced the game of baseball to the Japanese. It gained popularity in the 1930s, when American professional teams toured there. Today, some U.S. teams have Japanese players. However, the Japanese teams limit the number of U.S. players on their teams.

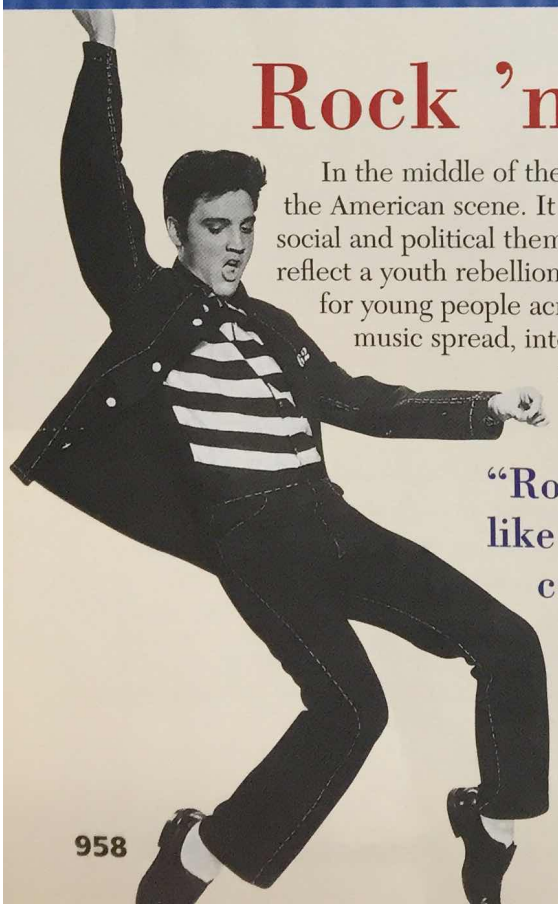
Baseball spread to Mexico, Cuba, Puerto Rico, Panama, and the Dominican Republic in the late 19th and early 20th centuries. The game was taught to local populations by men who learned it in the United States.

Little League Baseball began in the 1930s and expanded rapidly after World War II. Youngsters in the United States and approximately 30 other nations play the sport.

GlobalImpact: Cultural Crossroads

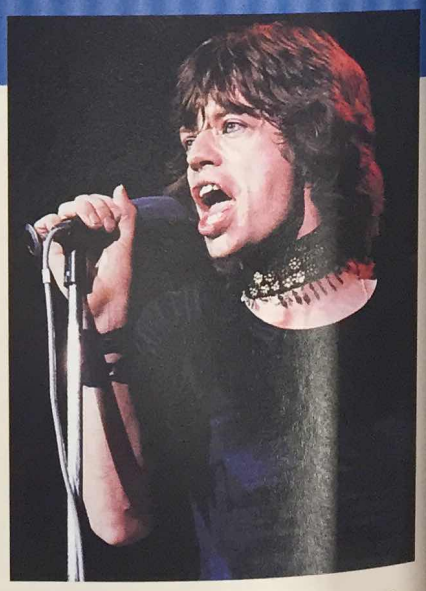
Rock 'n' Roll

In the middle of the 1950s, a new style of music emerged on the American scene. It was called rock 'n' roll. The music explored social and political themes. Rock music, which seemed to adults to reflect a youth rebellion, soon became the dominant popular music for young people across the world. As the influence of rock music spread, international artists added their own traditions, instruments, and musical styles to the mix called rock.



"Rock and roll music, if you like it and you feel it, you just can't help but move to it. That's what happens to me, I can't help it."—Elvis

During the 1950s and 1960s, Elvis Presley was called the King of American Rock 'n' Roll.



Mick Jagger of the Rolling Stones was part of the "British Invasion." The "British Invasion" was a term for the innovations brought to rock by British bands. The enormously popular Beatles and the enduring Rolling Stones were heavily influenced by American rhythm & blues. For example, the Rolling Stones took their name from a song lyric done by American blues musician, writer, and performer Muddy Waters.

World Culture Blends Many Influences

Greater access to the ideas and customs of different cultures often results in cultural blending. As cultural ideas move with people among cultures, some beliefs and habits seem to have a greater effect than others. In the 20th century, ideas from the West have been very dominant in shaping cultures in many parts of the globe.

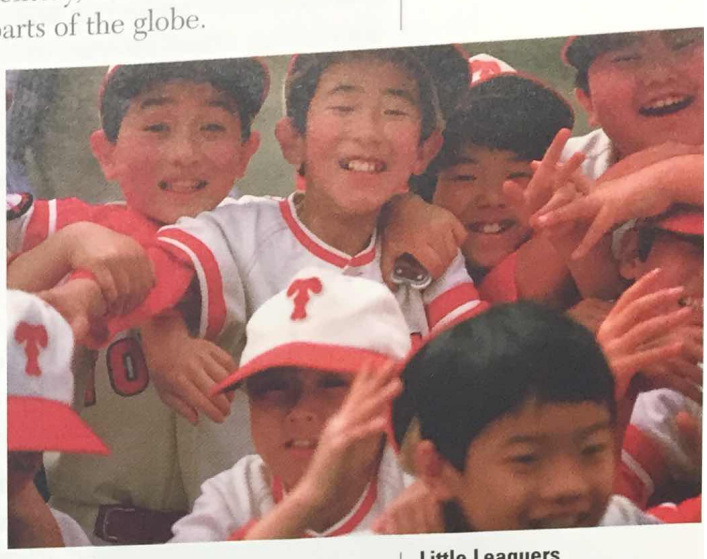
Westernizing Influences on Different Cultures

Western domination of the worldwide mass media helps explain the huge influence the West has on many different cultures today. However, heavy Western influence on the rest of the world's cultures is rooted in the 19th century. Western domination of areas all over the globe left behind a legacy of Western customs and ideas. Western languages are spoken throughout the world, mainly because of Europe's history of colonization in the Americas, Asia, and Africa.

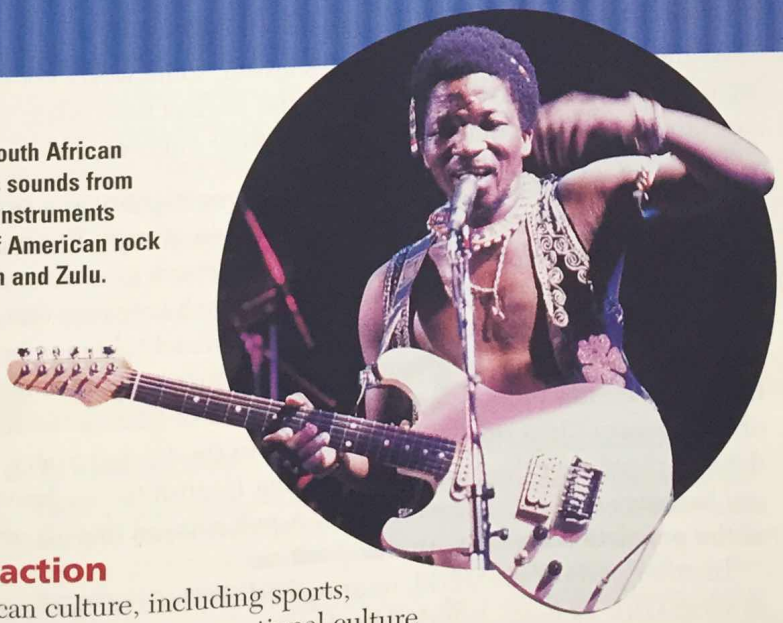
Over the past 50 years, English has emerged as the premier international language. English is spoken by about 500 million people as their first or second language. Although more people speak Mandarin Chinese than English, English speakers are more widely distributed. English is the most common language used on the Internet and at international conferences. The language is used by scientists, diplomats, doctors, and businesspeople around the world. The widespread use of English is responsible, in part, for the emergence of a dynamic global culture.

Western influence can be seen in other aspects of popular culture. For example, blue jeans are the clothes of choice of most of the world's youth. Western business

Background
There are approximately 836 million Mandarin Chinese speakers.



Little Leaguers celebrate a win. Each year the Little League has a World Series. During the 1970s teams from Taiwan dominated the series.



The multicultural South African band Juluka blends sounds from traditional African instruments along with styles of American rock and sings in English and Zulu.

Patterns of Interaction

The spread of American culture, including sports, fashion, and fast food, has created an international culture recognizable in all corners of the globe. In some cases American culture is simply a powerful influence, as other societies blend American culture with local customs. Cultural blending is evident even in America's past. Symbols of American culture like baseball and hot dogs are themselves the result of cross-cultural influences.

VIDEO ***Cultural Crossroads: The United States and the World***

Connect *to* History

Summarizing How have people in other parts of the world changed rock 'n' roll by adopting this American form of popular entertainment?

SEE SKILLBUILDER HANDBOOK, PAGE R3

Connect *to* Today

Making Inferences How have improvements in technology and global communications aided in the blending of musical styles?

suits are standard uniforms among many people. McDonald's hamburgers and Coca-Cola soft drinks can be purchased in many countries of the world. Mickey Mouse and other Disney characters are almost universally recognized. These examples of common dress, food, and entertainment figures all originated in the West and have been picked up and incorporated by other cultures. But Western influence also has an effect on ways of thinking. The Western mindset of placing a high value on acquiring material possessions—**materialism**—has been adopted by people of many different cultures.

Non-Western Influences Travel to the West Cultural ideas are not confined to moving only from the West to other lands. Non-Western cultures also influence people in Europe and the United States. From music and clothing styles, to ideas about art and architecture, to religious and ethical systems, non-Western ideas are incorporated into Western life. The non-Western mindset of placing value on meditation and contemplation has found a home in the West. The world's fastest-growing religion—Islam—comes from non-Western roots. Cultural blending of Western and non-Western elements opens communications channels for the exchange of ideas throughout the globe.

The Arts Become International Modern art, like popular culture, has become increasingly international. Advances in transportation and technology have facilitated the sharing of ideas about art and the sharing of actual works of art. Shows and museums throughout the world exhibit art of different styles and from different places. It became possible to see art from other cultures that had not previously been available to the public. For example, art from the Forbidden City in China or artifacts from Egyptian tombs can be viewed in museums in Europe and the Americas.

Literature, too, has become internationally appreciated. Well-known writers routinely have their works translated into dozens of languages, resulting in truly international audiences. The list of recent Nobel Prize winners in literature reflects a broad variety of writers' nationalities, including Nigerian, Egyptian, Mexican, West Indian, and Japanese.

THINK THROUGH HISTORY
B. Summarizing
Name three advances that allow a greater sharing of the arts.

SPOTLIGHT ON

French Cultural Backlash

If a French organization to prevent the corruption of the French language by foreign words has its way, the term *le air bag* will officially be replaced with the term *le coussin gonflable de protection.* To a foreigner the substitute must seem awkward. Language purists argue that allowing too many English-language words into the vocabulary will eventually make the French language and culture too foreign.

Since French has no terms to cover new inventions or ideas, language specialists devise terms to help deal with such words as data bank *(banque de données),* microchip (*puce,* which means flea), and software *(logiciel).*

It may be a losing battle, since 80 percent of all French high school students choose to study English as their foreign language.

Future Challenges and Hopes

As the differences between peoples lessen, some worry about losing their group identity. In some lands the leaders have taken measures to preserve the unique elements of their culture.

Cultural Clashes Fear of the loss of a unique identity as a people or nation may create conflict and clashes within groups. For example, in France in the late 1990s, a bureau of the French government was responsible for removing words from the French language that are believed to corrupt the language. A French official told members of the Higher Council of the French Language that keeping language from the excesses of foreign words was "an act of faith in the future of our country." In a similar vein, recently in the United States, debates raged over the question of making English the exclusive official language of the U.S. government. A poll showed that 73 percent of the population agreed with that position.

Background
Twenty-two states have enacted English-only laws.

In other parts of the world, wearing certain kinds of clothing, such as short skirts or jeans, is forbidden because it represents an intrusion of other cultures. Elsewhere, mass media is strictly censored to keep unwanted ideas from entering the land.

Sometimes groups respond to the influence of other cultures by trying to return to traditional ways. Cultural practices and rites of passage may receive even more emphasis as a group tries to preserve its identity. In some countries, native groups take an active role in preserving the traditional ways of life. For example, tribal groups, such as the Maori in New

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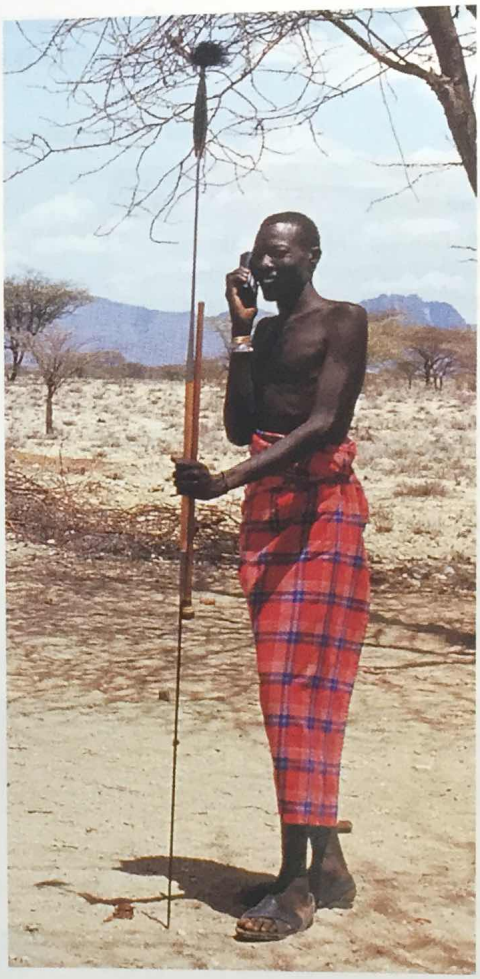
Zealand, have revived ancestral customs rather than face cultural extinction. Many Maori cultural activities are conducted in a way that preserves Maori ways of thinking and behaving. In 1987, the Maori language was made an official language of New Zealand.

Even when a nation does not have serious concerns about the impact of other cultures, it may struggle with questions of accommodation. **Accommodation** is the level of acceptance of ideas from another culture. Charles Mann, a journalist, describes the feelings of uncertainty that questions of accommodation raise.

A VOICE FROM THE PAST

As human . . . patterns look more and more alike . . . that unique place becomes ever harder to find. Things feel scary; people hunker down. Some retreat into their dialects, others into their national clothes, others into religion or guns. Even as the world unifies, its constituent parts fragment.

CHARLES MANN, *The Material World: A Global Family Portrait*



A Samburu warric in Kenya uses a cellular phone to stay in contact wi others in his grou

Global Interdependence Despite the uncertainty accompanying global interdependence, economic, political, and environmental issues do bring all nations closer together. Nations have begun to recognize that they are dependent on other nations and deeply affected by the actions of others far away. As elements of everyday life and expressions of culture become more international in scope, people across the world gain a sense of oneness with people in other areas of the world. Responses to events such as flooding in Bangladesh were international in scope. Nations from around the world sent assistance. It was as if the flooding had happened in their own country.

Technology has changed the way people, businesses, and nations view the world. Restricting cultural change is now very unlikely except in a few isolated locations.

Throughout history, human beings have faced challenges to survive and to live better. In the 21st century, these challenges will be faced by people who are in increasing contact with one another. They have a greater stake in learning to live in harmony together and with the physical planet. As Dr. Martin Luther King, Jr., stated, "Our loyalties must transcend our race, our tribe, our class, and our nation; and this means we must develop a world perspective."

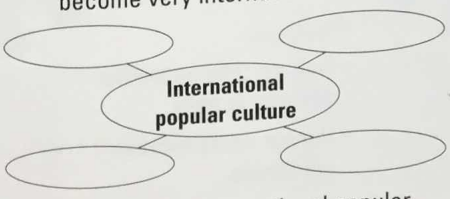
Section 4 Assessment

TERMS & NAMES

Identify
- popular culture
- materialism
- accommodation

2. TAKING NOTES

Draw a diagram like the one below and give details that illustrate the areas of popular culture that have become very international.



Which of the international popular culture aspects has the greatest effect on your life? Write a paragraph to explain why.

3. ANALYZING ISSUES

You have just immigrated to the United States. You are anxious to "fit in" in your new home but don't want to lose aspects of your former culture. What do you accept about the new culture and what do you retain of your birth culture?

THINK ABOUT
- elements of your birth culture you wish to maintain, adapt, or leave behind
- practical and day-to-day concerns
- feelings about your identity

4. THEME ACTIVITY

Cultural Interaction Look at the pictures in this section and those on the opening pages of thi chapter. They show types of cultural blending. Study current newspapers and magazines to se if you can find examples similar to the pictures shown. Create a scrapbook of pictures you have found. Write a caption for each picture illustrating cultural blending.