This material is designed to help you think about large historical topics in a manageable and meaningful way and to connect the content to the California standards.

How has globalization affected people, nations, and capital? How has the post–Cold War world and globalization facilitated extremist and terrorist organizations?

Globalization, as defined in Lesson 2, is “a process that makes something worldwide in its reach or operation.” The concept is not new. In the late 1800s, nations and businesses freely traded across oceans and international borders. Especially within colonial empires, goods and labor flowed from country to country. Globalization slowed in the early 1900s, but gained momentum again in the decades following World War II. Nonstate, transnational organizations have played a major role in this revival. One such organization, the United Nations, has provided a forum for countries to peacefully resolve disputes and work collectively on global issues. Multinational corporations expand across borders. They move goods to markets where demand is high and provide jobs where labor is cheap. This trend has improved production and stimulated local economies. Critics, however, complain that some multinational corporations contribute to economic exploitation. Technological developments, like the Internet, have transcended national boundaries as well. Lesson 1 describes further technological developments, and you will read more about multinational corporations in Lesson 2. Lesson 3 describes the UN’s activities, including its efforts to preserve global peace, promote human rights, and reduce discrimination.

Free trade, described in Lesson 2, is one of the most prominent examples of modern globalization. Since the end of World War II, nations have signed agreements and formed organizations to lower tariffs, expand free trade, reduce poverty, and promote financial cooperation. Countries have also joined regional trading blocs, such as the European Union, to increase commercial exchanges. Efforts to advance economic globalization have been greatly advanced by technology. Lesson 1 explains the communications advances that accelerated in the 1990s. Telephones and faster computer networks have made financial transactions around the globe faster and easier. These changes also helped multinational corporations grow. As described in Lesson 2, these giant companies operate production facilities, offices, and stores in many different nations. The spread of multinational corporations was part of a larger emergence of nonstate actors, organizations with political influence that are not affiliated with a particular nation.

Human migration is another aspect of globalization. Lesson 3 describes the push-pull factors that cause large-scale migrations. Immigration has increased global cultural exchanges. So too has the growth of technologies, such as the Internet, television, and camera phones. In Lesson 6 you will read about how American clothing styles, music, TV shows, fast food, and sports have spread around the world. At the same time, non-Western cultures have influenced the United States and Europe. Advances in transportation have aided in cross-cultural idea exchanges and immigration opportunities. While cultural blending is generally viewed positively, other aspects of globalization have generated sharp opposition. Lesson 2 explains the arguments that global economic development has caused environmental damage, increased pollution, and accelerated global warming.

The world has also seen many significant advances in communication and computing from the mid-20th century onward. The development of transistors provided a major technological breakthrough in the 1950s. Lesson 1 describes how this innovation eventually made computers smaller and available for people to own in their homes. The growth of the Internet in the 1990s accelerated information exchanges and transformed business interactions. Scientific and technological advances also spread the benefits of health care and medical breakthroughs. In Lesson 1 you will read about new medical technologies, including CAT scans and MRIs. The poorest nations of the world, however, have continued to suffer from diseases and higher mortality rates. Lesson 3 describes the efforts of the UN and global organizations to battle world health threats, such as malaria, tuberculosis, and AIDS. Green revolution breakthroughs in agriculture have helped efforts to improve health and nutrition in impoverished regions. Lesson 1 explains how better fertilizers and irrigation techniques increased food production. Additionally, genetics research has led to the development of plants that grow in poor soil and are more resistant to pests. The global spread of these types of innovations has raised hopes that poorer countries can increase their food production and gain better access to drinkable water.

Despite the benefits brought by globalization, the question remains whether the world is more or less peaceful than in previous decades. In 1989 the Berlin Wall fell, removing a symbol of the hostile division between the Western nations and the Communist bloc. Two years later the collapse of the Soviet Union seemed to mark the end of the Cold War. The primary cause of 40 years of global tension had been eliminated. United States President George H. W. Bush announced the start of a “New World Order”—an era of greater peace and stability. In 1991 Bush succeeded in building an international coalition to defend Kuwait from Iraqi aggression. His efforts seemed to strengthen support for collective security as a means of maintaining global peace. On September 11, 2001,
however, the Islamic extremist group al-Qaeda carried out terrorist attacks in New York City and Washington, DC, killing 3,000 people. Perceptions of a peaceful post–Cold War world were shattered. The United States responded by invading Afghanistan to depose the Taliban regime, which had supported al-Qaeda. In 2003 President George W. Bush launched an invasion of Iraq based on incorrect reports that Iraqi dictator Saddam Hussein possessed weapons of mass destruction. In starting this war, Bush dismantled the post–Cold War international system that his father had helped build. U.S. relations with its former European allies and other nations around the world deteriorated. In subsequent years, American tensions with Russia increased due to disagreements on a series of issues, including the civil war in Syria. While the events of 9/11 and the following years would appear to have turned the world away from George H. W. Bush’s “New World Order” ideal, the question must be considered whether the post–Cold War world prior to 9/11 was as stable as it might have appeared.

Expanding economic connections are among the most prominent aspects of globalization. Following World War II, economic globalization emerged in the form of international organizations and agreements. In Lesson 2 you will read about the creation of the International Monetary Fund (IMF) and the General Agreement on Tariffs and Trade (GATT). These agreements sought to promote international trade, increase economic growth, and reduce poverty. In 1995 the World Trade Organization (WTO) replaced GATT. Regional trade blocs, like the European Union and NAFTA, were also formed to expand tariff-free trade among member nations. This increasing economic interdependence was made possible by communications technology innovations. Lessons 1 and 2 describe how computer advances and the Internet allowed financial information and funds to quickly move around the world.

Another major result of economic globalization came with the emergence of multinational corporations. This type of business entity was not new. In the 1600s the Dutch East India Company and England’s East India Company linked Europe and Asia in a global trade network. As Lesson 2 explains, modern multinational corporations maintain production and sales facilities in different countries. Their operations transcend national boundaries, gaining brand recognition with consumers worldwide. Lesson 6 describes how the marketing power of giant multinational businesses has influenced global tastes and buying preferences around the planet.

The overall effects of economic globalization, as you will read in Lesson 2, have been generally welcomed for promoting growth and stability. Sharp inequalities in wealth, however, remain between the world’s most developed and least developed countries. Workers, moreover, have not always benefited from the freer movement of capital and goods. Manufacturers often move their production operations to poorer nations where they can pay lower wages. At the same time, immigration restrictions prevent laborers from moving to developed nations where they might earn higher wages. Such income inequalities have attracted charges of unfairness from both those in developed and developing countries.

The rise of multinational corporations and transnational organizations in recent decades has presented challenges to the world’s governments. Nation-states gained in influence and authority during the 19th century, becoming the dominant world powers of the industrial age. In the 21st century, however, state sovereignty has waned. In the face of increasing independence of multinational corporations, transnational organizations, and terrorist groups, globalization’s challenge to the nation-state has even led some observers to conclude that the UN has lost significance as a governing world body. Critics claim that the instant spread of information hampers the UN’s ability to effectively address transnational issues. Veto power within the UN Security Council and the difficulties of gathering enough representatives to achieve a quorum, much less a consensus, leave the UN in a position of acting more as an international forum than a government body. For these reasons, its ability to enforce policies on member nations is limited.

Positive impacts of globalization include the advancement of worldwide efforts to protect human rights. Centuries ago, during the Enlightenment, the theory of “natural rights” gained momentum. Ideas that all humans
possess inalienable rights inspired American and French revolutionaries to throw off monarchical rule in the late 1700s. Not until the 20th century, however, did standards for human rights gain official international recognition. In Lesson 3 you will read about the Universal Declaration of Human Rights, issued by the United Nations in 1948. This document describes the legal, social, and economic rights that belong to all people around the world. These rights include the right to liberty, right to security of person, right to work, as well as freedom from slavery and degrading treatment. This document, however, was a nonbinding agreement. The UN had no specific means to enforce its provisions and punish violations. The Universal Declaration nonetheless inspired people around the world. In the 1970s, movements for human rights started gaining momentum that have continued to the present. As Lesson 3 describes, nongovernmental organizations (NGOs) formed to end slavery, fight injustice, promote democracy, and help people in need of medical assistance. Notable NGOs working in these areas include Human Rights Watch, Freedom House, and Doctors Without Borders. Other groups, such as Human Rights Education Associates (HREA), the International Committee of the Red Cross, and Human Rights Educators USA have emphasized teaching about human rights and humanitarian law, so people worldwide are better able to protect their freedoms. Recent communications advances, such as satellite broadcasts and social media, have advanced efforts of humanitarian NGOs. Abuses of human rights can be exposed to the rest of the world much faster and easier than in previous decades.

Governments, especially those in the West, also took up the cause of promoting human rights. During the Cold War the United States often attacked the human rights abuses of the Soviet Union, but they tended to overlook the human rights violations of their right-wing allies. The issue nonetheless played a significant role in tipping the Cold War in favor of the West. Human rights activists played key roles in stirring opposition to Communist rule. In Poland, for example, Lech Walesa defied authorities by organizing strikes and forming an independent trade union. Pope John Paul II supported Walesa’s efforts and provided a powerful voice, supporting human rights in Communist Poland. Soviet scientist Andrei Sakharov infuriated his own government by criticizing its abuse of power and violation of citizens’ rights. Czech writer Václav Havel similarly challenged his nation’s Communist government, eventually leading the revolution that removed it from power in 1989. After the Cold War ended, more Western nations added human rights concerns as part of their foreign policy agendas. Such stated goals, however, did not spare them from criticism from prominent NGOs about their own human rights and judicial system shortcomings. Amnesty International, for example, has decried several U.S. policies including the use of torture against suspected terrorists and maintaining the prison at Guantanamo Bay. They also have targeted the British policy of internment in Northern Ireland.

Another impact of globalization has been the resurgence of diverse religious movements. In recent decades a worldwide religious revival has increased fervor among Buddhists in Southeast Asia, Muslims in the Middle East, Christians in the United States, and Hindus in India. In matters of human rights, both secularists (people who do not follow a religion) and religious believers appeal to higher authorities than the nation-state. Where secularists point to Enlightenment ideals of “natural rights,” religious adherents ascribe to the authority of holy law. In this way people are no longer just citizens of the nation in which they reside, but also members of an “identity community” of fellow believers that spans different countries and continents. This recent trend has surprised many observers who expected the world to continue on a path of increasing secularism in the 1960s and 1970s. Instead, religion has made a transnational comeback in the modern age of globalization. Issues of faith have increasingly shaped national political debates. Attempts by secularist politicians to resist the rising tide of religious expression have resulted in divisive conflicts. In Turkey and France, for example, governments provoked outrage and controversy in the 1990s by barring female Muslim students from wearing headscarves in public schools. Religious groups have become increasingly politicized, even gaining governing power in some nations. The Muslim Brotherhood nominated a candidate who was elected president of Egypt in 2012. One of their goals was to establish Sharia Law, law based on the Qur’an and later Islamic teaching. Other religious organizations operate in different nations beyond government control.

Utilizing the Internet and social media to attract new members and financial support, extremist groups have expanded their reach in recent years. Fundamentalist organizations, as you will read in Lesson 4, use violence and terrorism to promote their agendas. Attacks by radical Islamic groups like al-Qaeda and ISIS have increased tensions between Muslims and Western nations. Not all parts of the world, however, have followed the recent trend of religious revival. China and Western Europe, for example, are two of the world’s least religious regions. As you read on, continue to consider the impact of religious movements in international and domestic matters, and consider why certain regions may have been more greatly affected by this trend than others.

Assessing the sweeping effects of globalization has led scholars, politicians, and journalists to ponder one more major question: Is the West in decline? For the past five centuries, the Western world—primarily Europe
and the United States—has dominated global affairs. In the 16th and 17th centuries, Europeans explored the world, establishing trading posts and colonies on distant continents. Wealth from trade and resources from their colonies allowed Western nations to grow richer. Europe and the United States industrialized in the 1800s, further increasing their economic and military power. By the early 1900s the West ruled much of Asia and nearly all of Africa. Scholars call this ascendance of the Western world over the once-powerful empires of Asia the “Great Divergence.”

The two world wars of the 20th century, however, depleted the strength of the Western European powers. Great Britain, France, and their neighbors could not contain the rising tide of nationalism in Asia and Africa. Empires dissolved as colonies gained independence. European nations preserved their economic strength by joining together into the European Economic Community (today the EU) and masked their military decline by forming the NATO alliance with the United States. Both efforts succeeded. The nations of Europe have enjoyed decades of peace since World War II. The large-scale influx of Muslim migrants and refugees in recent years, however, has increased social tensions and threatened to destabilize certain countries.

In contrast to its European allies, the United States increased its status as a dominant world power after World War II. The United States remains an economic and military superpower in the present day. Some cracks, however, have appeared in America’s international status. A heavy reliance on oil from the Middle East allowed OPEC to create an energy crisis in the 1970s. The following decade, the United States shifted from a creditor nation to a debtor nation. It has been forced to borrow heavily from other countries to cover trade deficits. Much of this public debt is owed to China, America’s economic rival. Economists expect that China will soon overtake the United States as the largest world economy. Some predict that the U.S. economy will be only half the size of China’s by 2050. Four of the top five economies by the mid-21st century are expected to be China, India, Brazil, and Russia. The center of global economic activity could thus shift back to Asia, reversing the Great Divergence of previous centuries. Collectively, the mass migrations, political upheavals, economic realignments, and rising new powers that have accompanied globalization have made the world a less predictable place.

agreements, cultural exchanges, technological innovations, religious movements, and terrorist threats impact how people on every continent live. These global developments shape a vast range of human interactions, from negotiations between governments to how your neighbors shop for groceries.

1. Choosing a Recent Historical Development Your task is to choose a current topic related to globalization. Your selection should have a specific focus. For example, you might examine terrorist organizations in the Middle East, the efforts of NGOs to stop human rights abuses, the growing power of multinational corporations, or how trade agreements have impacted workers. Those are just a few of the many topics you could choose.

2. Conducting Research Use Internet and library resources to research the topic you selected. Review primary sources from people of differing viewpoints. Seek to learn a variety of perspectives.

3. Writing an Essay Write a 3- to 4-page essay on your topic. While your focus should be on current developments, do not neglect the historical roots of those developments.

**ACTIVITY**

**Decline of the West Presentation**

At the turn of the 20th century, the nations of Europe and the United States ruled vast empires around the globe. Their colonies and economic networks generated great wealth for Western economies. By the turn of the 21st century, however, these empires had dissolved into independent countries. New economic powers, such as China, India, and Brazil, had emerged. The shifting of global fortunes has raised the question: Is the West in decline?

1. **Discussing the Issue** Your task is to form a small group with two other students. Consider with other group members whether or not Europe and the United States have entered a period of decline.

2. **Researching the Issue** Conduct Internet and library research to explore this topic. Be sure to seek out statistical data relevant to the topic (e.g., Gross Domestic Product numbers, values of imports/exports, national debt, etc.). After examining the information you find, determine your group’s position on the question of Western decline.

3. **Presenting Your Findings** Working with your group, prepare a multimedia presentation or a video based on your research. Your presentation should take a clear position on the above question and present factual information to support your claims. Make sure to provide a list of credible sources with proper citations.

**Current Events Essay**

Globalization has produced an array of sweeping changes around the world. New multinational organizations, trade
Module 18

Global Interdependence

Essential Question
Do the benefits of globalization outweigh the problems it causes?

About the Photo: This photo taken from the Old City in Shanghai features one of the tallest buildings in the world (Shanghai Tower) and reflects the changes seen in China as the world grew increasingly interconnected.

In this module, you will learn how technology, economics, and diplomacy have helped make the world a more interconnected place.

Videos, including...
- A World Without Oil
- Battle for Baghdad
- History of Terrorism
- 100 Years of Terror
- A World Without Water

Document-Based Investigations
Graphic Organizers
Interactive Games
Image Compare: Evolution of Computers
Carousel: The Reality of War: Ethnic and Religious Conflicts

10.9.8 Discuss the establishment and work of the United Nations and the purposes and functions of the Warsaw Pact, SEATO, NATO, and the Organization of American States. 10.11 Students analyze the integration of countries into the world economy and the information, technological, and communications revolutions (e.g., television, satellites, computers). CST.2 Students analyze how change happens at different rates at different times; understand that some aspects can change while others remain the same; and understand that change is complicated and affects not only technology and politics but also values and beliefs. CST.3 Students use a variety of maps and documents to interpret human movement, including major patterns of domestic and international migration, changing environmental preferences and settlement patterns, the frictions that develop between population groups, and the diffusion of ideas, technological innovations, and goods. CST.4 Students relate current events to the physical and human characteristics of places and regions. HI.5 Students analyze human modifications of landscapes and examine the resulting environmental policy issues. HI.6 Students conduct cost-benefit analyses and apply basic economic indicators to analyze the aggregate economic behavior of the U.S. economy.
1960

1968 Many nations sign the Nuclear Non-Proliferation Treaty.

1972 Terrorists carry out attack at the Summer Olympic games in Munich.

1975 Helsinki Accords support human rights.

1981 U.S. carries out first space shuttle flight.

1983 French research scientists isolate the AIDS virus.

1986 Accident takes place at Soviet nuclear power plant in Chernobyl.

1995 World Trade Organization is set up.

2001 UN issues the Declaration of Commitment on HIV/AIDS. Terrorists launch attacks in New York and Washington, DC.

2003 Human Genome Project is completed.

2010 British Petroleum drilling rig explodes in the Gulf of Mexico.

2013 Malaria epidemic kills 584,000 people in Sub-Saharan Africa.

2015 The number of Syrian refugees surges to about 9 million since February 2011.

2014 An outbreak of Ebola virus, the largest in history, begins to spread through western Africa.

2015 Syrian civil war begins.

2007 NASA space shuttle makes 23rd mission to International Space Station.
Lesson 1

Science and Technology
Transform Life

The Big Idea
Advances in technology after World War II led to increased global interaction and improved quality of life.

Why It Matters Now
Advances in science and technology affect the lives of people around the world.

Key Terms and People
International Space Station
Internet
Genetic engineering
Cloning
Green revolution

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 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 that the space race required led to the development of products that changed life for people across the globe.

Exploring the Solar System and Beyond
In its early years, competition between the United States and the Soviet Union in the space race was intense. Eventually, however, space exploration became one of the world’s first and most successful arenas for cooperation between U.S. and Soviet scientists.

Cooperation in Space
In 1972, years before the end of the Cold War, the U.S. and Soviet space programs began work on a cooperative project—the docking of U.S. and Soviet spacecraft in orbit. This goal was achieved on July 17, 1975, when spacecraft from the two countries docked some 140 miles above Earth. Television viewers across the globe watched as the hatch between the space vehicles opened and crews from the rival countries greeted each other.

This first cooperative venture in space between the United States and the Soviet Union was an isolated event. People from different countries, however, continued to work together to explore space. The Soviets were the first to send an international crew into space. The crew of Soyuz 28, which orbited Earth in 1978, included a Czech cosmonaut. Since the mid-1980s, crews on U.S. space missions have included astronauts from Saudi Arabia, France, Germany, Canada, Italy, Japan, Israel, and Mexico.
The **International Space Station** (ISS) project came together in 1993 when the United States and Russia agreed to merge their individual space station programs. The European Space Agency (ESA) and Japan also became part of the effort. Beginning in 1998, U.S. shuttles and Russian spacecraft transported sections of the ISS to be assembled in space. In 2011, the ISS was completed, covering an area larger than a six-bedroom home and four times larger than *Mir*, the Russian space station. It weighs almost one million pounds. Ongoing experiments aboard the ISS helped lead to advances in medicine and technology and have allowed scientists to study the long-term effects of weightlessness on the human body.

**Space Exploration** The U.S. space shuttle program began in 1981 with the launch of *Columbia*. Over the next 30 years, space shuttles hosted great numbers of scientific experiments in orbit around Earth and deployed satellites from their enormous cargo bays. The space shuttle program ended on July 21, 2011, when the shuttle *Atlantis* landed at the Kennedy Space Center in Florida.

In 1990, the United States’ National Aeronautics and Space Administration (NASA) and the ESA developed and launched the Hubble Space Telescope. More than 20 years later, this orbiting telescope continues

---

**DOCUMENT-BASED INVESTIGATION**

**Historical Source**

**The Tranquility Module**

In February, 2010, the crew of the space shuttle *Endeavor* delivered Tranquility, one of the last pieces of the space station. To mark the occasion, President Obama hosted a video conference with the crew of the shuttle and of the ISS.

*THE PRESIDENT:* “...The amazing work that's being done on the International Space Station not only by our American astronauts but also our colleagues from Japan and Russia is just a testimony to the human ingenuity; a testimony to extraordinary skill and courage...; and is also a testimony to why continued space exploration is so important... I wanted you guys to maybe let us know what this new Tranquility Module will help you accomplish...  

*COMMANDER WILLIAMS:* “...The Tranquility Module... is going to serve as a gym, as a hygiene area, as a place a crew can maintain themselves for a long duration. And a long duration living and working in space is what the Space Station is all about—to do the research and the science necessary to take us beyond Earth orbit. That was the ultimate purpose of the Space Station, and the arrival of this module will enable us to do that.”

—from Remarks by the President in Conversation with the ISS Crew and the Space Shuttle *Endeavor* Crew, February 10, 2010

**Analyze Historical Sources**

What common goals are the Americans and their Japanese and Russian colleagues working toward on the ISS?
Reading Check
Analyze Motives Why might rival nations cooperate in space activities but not on Earth?

Tablet computer users have books, newspapers, music, games, and movies at their fingertips.

To record and send back images of objects many millions of light-years from Earth.

Other NASA programs focus on neighbors in Earth’s solar system. In 2004, NASA successfully landed two robotic rovers on Mars. Their mission was to study the planet for signs of water or life (now or in the past). Both rovers, Spirit and Opportunity, found evidence of water in Mars’s past. Spirit stopped operating in 2010, while Opportunity continues to explore Mars, taking panoramic images. In September 2015, NASA announced that a satellite orbiting Mars found evidence that liquid water exists on Mars under certain conditions. In July 2015, NASA made history when New Horizons, a U.S. space probe, flew by Pluto and one of its moons. This was the first time that a space probe had flown by Pluto.

**Expanding Global Communications**

Since the 1960s, artificial satellites launched into orbit around Earth have aided worldwide communications. With satellite communication, the world has been transformed into a global village. Today, political and cultural events occurring in one part of the world often are witnessed live by people thousands of miles away. This linking of the globe through worldwide communications is 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. In the years since then, however, the circuitry that runs the computer has become smaller and more powerful. By the late 1950s, the much smaller transistor had replaced the bulky vacuum tubes used earlier. Today, tiny silicon chips, also called microchips, can contain a billion or more transistors, and that number doubles about every two years.

In light of these developments, industries began to use computers and silicon chips to run assembly lines. Today a variety of consumer products such as microwave ovens, keyboard instruments, smartphones, household thermostats, and cars use computers and chips. Computers have become essential in many industries, and millions of people around the globe have computers in their homes.

**Communications Networks** Starting in the 1990s, businesses and individuals began using a worldwide network of linked computers known as the Internet. The Internet is a voluntary network that began in the late 1960s as a method of linking scientists so they could exchange information about research. Through wired or wireless links, business
and personal computers can connect to these computer networks. These networks allow users to communicate with people across the nation and around the world. The rapid exchange of information over these networks has become so integral to economic activity that this period of human history has come to be known as the Information Age. Between 2000 and the end of 2015, the number of worldwide Internet users soared from 394 million to more than 3 billion.

Conducting business on the Internet has become a way of life, and the Internet has increased personal and business electronic communications to create a global culture. Because it transmits information electronically to remote locations, the Internet paved the way for home offices and telecommuting—working at home using a computer connected to a business network. Once again, as it has many times in the past, technology has changed how and where people work.

It has also changed how people live, affecting not only traditional cultures but also people’s values. The ability for one culture to connect electronically with another culture enables cultures to influence one another more easily and rapidly than ever before. This influence can be positive or negative depending on how different cultural values and traditions are perceived and adopted among cultures.

The Internet has also changed social interactions. Social networks allow users to connect with people with similar interests or backgrounds regardless of geographic locations. Social networking services allow people to communicate their ideas, pictures, posts, events, and interests with others in their network.

**Reading Check**

Summarize What types of technology have recently changed the workplace?
Transforming Human Life

Advances with computers and communications networks have transformed not only the ways people work but also standards of living. Technological progress in the sciences, medicine, and agriculture has improved the quality of the lives of millions of people, whether making life easier, healthier, or more accessible.

Health and Medicine Before World War II, surgeons seldom performed operations on sensitive areas such as the eye or the brain. However, in the 1960s and 1970s, new technologies, such as more powerful microscopes, the laser, and ultrasound, were developed. Many of these technologies advanced surgical techniques to save lives and improve quality of life for those who suffer from chronic disease.

Advances in medical imaging also helped to improve health care. Using data provided by CAT scans and MRI techniques, doctors can build three-dimensional images of different organs or regions of the body. Doctors use these images to diagnose injuries, detect tumors, or collect other medical information. Advanced imaging with MRIs has helped detect neurological injuries and aided neurological studies.

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 modify the traits of an organism by changing its genes.

Another aspect of genetic engineering is cloning. This is the creation of identical copies of DNA, the chemical chains of genes that determine heredity. Cloning allows scientists to reproduce both plants and animals that are identical to existing plants and animals. The application of genetics has led to many breakthroughs, especially in agriculture.

The Green Revolution In the 1960s, agricultural scientists around the world started a campaign known as the green revolution. It was an attempt to increase food production worldwide. Scientists promoted the use of irrigation, fertilizers, pesticides, and high-yield, disease-resistant strains of a variety of crops. The green revolution helped avert famine, which can be caused by natural disasters, armed conflicts, and overused soil, and increased crop yields in many parts of the world.

However, the green revolution had its negative side. Fertilizers and pesticides often contain dangerous chemicals that may 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.
Molecular Medicine

In 2003, scientists employed on the Human Genome Project completed work on a map of the thousands of genes contained in human DNA—human genetic material. The information provided by this map has helped in the development of a new field of medicine. Called molecular medicine, it focuses on how genetic diseases develop and progress.

Researchers in molecular medicine are working to identify the genes that cause various diseases. This will help scientists detect diseases in early stages of development and find new ways to treat the diseases. Another area of interest to researchers is gene therapy. This involves using genes to treat disease either by replacing a patient’s mutated genes with healthy ones, deactivating a mutated gene, or adding a gene that can fight disease. The ultimate aim of workers in this field is to create customizable drugs based on a person’s genetic makeup.

Advances in genetics research seem to be helping to fulfill some of the goals of the green revolution. In this new “gene revolution,” resistance to pests is bred into plant strains, reducing the need for pesticides. Plants being bred to tolerate poor soil conditions also reduce the need for fertilizers. The gene revolution involves some risks, including the accidental creation of disease-causing organisms. However, the revolution holds great promise for increasing food production in a world with an expanding population.

Science and technology have changed the lives of millions of people. 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 Lesson 2.

Lesson 1 Assessment

1. **Organize Information** List the effects of changes in communications, health and medicine, and agriculture on the chart. Explain which of the three developments you think has had the greatest global effect.

<table>
<thead>
<tr>
<th>Developments</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications</td>
<td></td>
</tr>
<tr>
<td>Health and Medicine</td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td></td>
</tr>
</tbody>
</table>

2. **Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.

3. **Make Inferences** Why do you think that space exploration became an area of cooperation between the Soviet Union and the United States?

4. **Predict** How do you think the Internet will affect the world of work in the future? Create a graph that shows your prediction.

5. **Form Opinions** How do you think scientific and technological advances have changed the quality of life?
Global Economic Development

The Big Idea
The economies of the world’s nations have been so tightly linked that the actions of one nation have affected others.

Why It Matters Now
Every individual is affected by the global economy and the environment.

Key Terms and People
developed nation
emerging nation
gross domestic product
global economy
globalization
free trade
ozone layer
sustainable development

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, with aid from the United States, the economies of Western European nations and Japan began expanding rapidly within a decade. Their growth continued, long after the United States ceased supplying aid. Advances in science and technology contributed significantly to this ongoing economic growth.

Economic Opportunities and Challenges
In both Asia and the Western world, an explosion in scientific knowledge prompted great progress that led to new industries. Technological advances in plastics, robotics, and computer science changed industrial and business processes, lowered costs, improved quality, and led to large productivity gains. For example, robotic arms on automobile assembly lines made possible the fast and safe manufacture of high-quality cars, and the Internet enabled companies to reach new markets around the world. But these developments did not eliminate economic challenges. Nations routinely monitor their economies and take action to promote growth and reduce risks.

Information Industries Change Economies
Technological advances in manufacturing have reduced the need for factory workers, but in other areas of the economy new demands are 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 “knowledge workers,” or people whose jobs focus on working with information.
The Effects of New Economies  In the post-World War II 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, into emerging nations, those nations in the process of becoming industrialized. Overall there are far more emerging countries in the world than developed countries.

Emerging nations 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 require better-educated workers who demand higher wages multiplied in the economies of developed nations. Thus the changes brought by technology changed the workplace, resources, and labor of both developed and emerging nations.

Wealth and Inequality  Nations measure the strength and stability of their economies in many ways. Gross domestic product (GDP) is one key indicator of a country’s economic health. GDP is a measure of the total market value of all goods and services produced by a country in a given period of time. Many factors affect GDP, including natural resources, governmental institutions, market structures, technological capabilities, and labor skills. Ongoing changes to these factors may impact the economy in multiple ways.

Developed countries have the highest GDPs. They include the world’s wealthiest and most powerful nations and are found mostly in Europe, North America, and parts of Asia. People in developed countries generally have access to good health care, education, and technology. Their standard of living is high compared to that of...
developing countries. The world’s poorest countries, those with the lowest GDP, are sometimes called the least developed countries. Most of these countries are located in Africa and southern Asia. They suffer from high levels of poverty, a lack of political and social stability, and often, ongoing war or other conflicts. These challenges make it difficult for the least developed countries to compete in a global economy.

Even within the developed economies, however, there are inequities in the distribution of wealth and income that result in different economic outcomes for individuals, ranging from poverty to extreme wealth. These imbalances present very real challenges and suffering to the people at the lower end of the economic scale. Governments, charitable organizations, and sometimes even businesses design and implement programs to address the suffering that results from poverty. Governments use redistributive measures (such as taxing those with higher incomes and distributing the funds to those with lower incomes) and social programs (such as subsidized health care and housing). An example of how business and charitable organizations work together to address poverty in the United States and in many other countries are the food banks that collect and redistribute excess food to those in need.

**Economic Stability** The most common factors that contribute to the successful development of an economy are strong legal and judicial institutions, free markets, and economic freedom. Less developed countries tend to have weak political institutions and low rates of participation in the economy, as well as markets that offer fewer products. Countries with a high concentration of governmental control—North Korea, Venezuela, and Cuba, for example—exhibit some of the worst economic outcomes and the greatest political and economic inequality. A lack of educational opportunity and poor-quality infrastructure (roads, bridges, sanitation systems, and so forth) can also contribute to poor economic results.

Most developing countries aim to create stable political, economic, and social conditions for their people. Factors such as affordable health care, educational opportunity, and low levels of crime contribute to social stability, or the well-being of a country’s population. Countries that enjoy social stability tend to attract increased investment, leading to the expansion of their economies. A stable society can also promote political order and democratic governance. Political stability and the rule of law, which protects private property, contracts, and other legal agreements, can further foster the growth of the economy. A strong economy leads to the creation of wealth, more jobs, and expanding consumer markets. In the United States and many other nations, economic strength helps enlarge the middle class, which forms the backbone of a stable society. However, in many developing nations in Latin America, Africa, and southern Asia, instability is common. In such situations, investors are unwilling to make the investments that would lead to a stronger economy.
Managing Economies  Monetary authorities control the money supply in a country. Monetary policy can include taking short-term actions, such as raising or lowering interest rates, to try to ensure an adequate money supply and to sustain and expand a country’s economy. Monetary policy also manages or limits the effects of recessions and inflation.

Many developing countries struggle with poor monetary policies. In some of these countries, the central bank places the government’s financial interests above the health of the country’s economy. This can result in a weak financial system and an unstable money supply.

Governments can regulate the economy toward different goals, whether to maintain a competitive environment for businesses, increase consumer spending, or to spur economic growth. Governments can use price ceilings (upper limits) and floors (lower limits) on goods and services. Such regulations mean that businesses can only charge prices for a good or service within these limits.

Price ceilings and floors are generally understood to create negative distortions in the economy, resulting in surpluses or shortages of the price-controlled commodity. For example, when the U.S. government tried to control the maximum price of gasoline, shortages appeared, resulting in long lines at gas stations. A minimum wage is an example of a price floor. The government sets a minimum price for labor, and businesses must pay this minimum to workers even if it is higher than what the business can afford to pay. In this situation, some businesses may downsize, or reduce their number of employees, in order to pay the higher wage. Thus, a surplus of labor would enter the economy and could cause unemployment to rise. However, those who support a minimum wage argue that paying workers a higher wage causes those earners to spend more as consumers, which can spur economic growth.

"Politics and political power as traditionally practiced and used in the Philippines are among the roots of the social and economic inequities that characterize our national problems. Thus, to achieve true reforms, we need to outgrow our traditional brand of politics based on patronage and personality. Traditional politics is the politics of the status quo. It is a structural part of our problem. We need to promote a new politics of true party programs and platforms, of an institutional process of dialogue with our citizenry. This new politics is the politics of genuine reform. It is a structural part of the solution.”

—Gloria Macapagal Arroyo
Inauguration Speech, 2001

Reading Check  Find Main Ideas
What are some ways that emerging nations can improve their economies?
Economic Globalization

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 did not begin to take shape until well into the second half of the 1800s. The **global economy** includes all the economic interactions—among people, businesses, and governments—that cross international borders. In recent decades, several factors hastened the process of **globalization**. Huge cargo ships could inexpensively carry enormous supplies of fuels and other goods from one part of the world to another. Technology such as the telephone and computer linkages made global financial transactions quick and easy. In addition, multinational corporations developed around the world.

In order to foster global monetary cooperation, the International Monetary Fund (IMF) was created to facilitate international trade, promote employment and sustainable economic growth, and reduce poverty around the world. The IMF pursues its goals by monitoring financial and economic policy in member countries; providing technical assistance and training, especially for countries with lower and middle income; and providing loans with the expectation that the country receiving the money will put into action IMF policies to improve its economy for sustainable growth.

**Multinational Corporations** Companies that operate in a number of countries are called multinational or transnational corporations. U.S. companies such as Exxon Mobil and Ford, European companies such as BP and Royal Dutch/Shell, and Japanese companies such as Toyota and Mitsui are all multinational giants.

All of these companies have established manufacturing plants, offices, or stores in many countries. For their manufacturing plants, 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

---

**Interpret Graphs**

1. **Compare** Which has the larger economy, Vietnam or General Motors?
2. **Compare** Which countries have an economy greater than the annual revenue of Chevron but smaller than that of Wal-Mart?
location to be assembled. This level of economic integration is beneficial because it 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.

Multinational corporations create jobs when they open new locations in host countries. They may increase profits and productivity (the rate of output per unit of input). They often bring technology to an area, which helps to improve production and the area’s economy in general. At the same time, multinational corporations face challenges such as management across multiple countries where processes and standards differ. Critics accuse multinational corporations of widening the gap between developed and emerging countries and contributing to economic exploitation, human rights abuses, and the loss of traditional industries in emerging countries.

**Expanding Free Trade** Opening up the world’s markets to trade is a key aspect of globalization. In fact, a major goal of globalization is free trade, or the elimination of trade barriers, such as tariffs, among nations. As early as 1947, nations began discussing ways to open trade. The result of these discussions was the General Agreement on Tariffs and Trade (GATT). Over the years, meetings among the nations that signed the GATT have brought about a general lowering of protective tariffs and considerable expansion of free trade. Since 1995, the World Trade Organization (WTO) has overseen the GATT to ensure that trade among nations flows smoothly and freely.

Global flows, which include the movement of goods, services, finances, and people, have driven global economic growth. They play an important role in creating new international economic relations. In 2014, the value of all exports and imports made up about half of global GDP, and some experts expect this value to increase. Several factors cause global flows growth, including rising prosperity, emerging world markets, regional trade blocs, and the increased use of the Internet.

**Regional Trade Blocs** A European organization set up in 1951 promoted tariff-free trade among member countries. This experiment in economic cooperation was so successful that six years later, a new organization, the European Economic Community (EEC), was formed. Over time, most of the other Western European countries joined the organization, which has been known as the European Union (EU) since 1992. By 2015, twenty-eight European nations were EU members, and many had adopted the common European currency—the euro (symbol: €). The EU is an economic and political union and is now the largest trading bloc in the world. It acts as a single economic unit but also advocates a united foreign and security policy and works to promote peace and equality.

The success of the EU inspired countries in other regions to make trade agreements with each other. The North American Free Trade Agreement (NAFTA), put into effect in 1994, called for the gradual elimination of tariffs and trade restrictions between Canada, the United States, and Mexico. All three countries received a small positive economic benefit as seen in each country’s GDP. Organizations in Asia, Africa, Latin America, and the
South Pacific have also created regional trade policies. In 2013, the United States began negotiating a free trade agreement, called the Transatlantic Trade and Investment Partnership (T-TIP), with the EU.

These trade agreements, along with other global economic trends, have made nations economically interdependent, or mutually dependent. Nations depend on other nations for the goods and services that scarcity prevents them from being able to produce themselves. Nations produce those goods or services for which they have a comparative advantage, or an ability to produce at a relatively low cost. They are then able to sell their product or service to other nations that cannot produce it efficiently, at the same time acquiring items they are unable to produce. For example, a nation with extensive forests but no iron ore may harvest timber to export but need to import steel from nations who have the iron ore needed to create it.
A Global Economic Crisis  Beginning in 2007, after a long period of relative worldwide prosperity, several factors combined to cause an economic downturn, which later became known as the “Great Recession.” Housing prices in the United States and in parts of Europe had increased dramatically over a short time, driven up by lax lending policies that offered mortgage loans to almost anyone and monetary policies that supported the growth of the money supply. The financial industry found it could bundle groups of these mortgages into an investment vehicle called a mortgage-backed security (MBS), which it sold to investors despite hidden risks. When housing prices in the United States and parts of Europe began to plummet, banks and financial institutions across the globe were not prepared to deal with the loss of value in their portfolios of mortgages and mortgage-backed securities. As these entities began to fail, governments around the world stepped in to attempt to stabilize the situation. Meanwhile, unemployment rates skyrocketed.

When economic crises occur, governments enact programs in the hopes of improving economic outcomes. These programs are often based on competing models of how the economy works and what governments can do to address the issues. When the financial crisis hit the U.S. economy in 2007, a Keynesian program of fiscal stimulus was enacted. It consisted of a combination of new government spending (road construction, extended unemployment benefits) and tax cuts (tax rebates). The bulk of the stimulus was implemented in 2008 and 2009. As the economic crisis continued, the U.S. government tried a different approach. It allowed the tax cuts to expire, reduced government spending, and attempted to restrain growth of the federal deficit. Whether despite or in response to these competing programs, the U.S. economy stabilized in the second half of 2009 and began to slowly grow out of the recession, with unemployment declining beginning in 2010.

By 2010, the world economy had stabilized, but it remained weak, as seen especially in the economies of Greece, Spain, Portugal, Italy, and Ireland. In May 2010, the IMF, the European Commission, and the

Vocabulary
Keynesian relating to the theories of economist John Maynard Keynes, who advocated use of government deficit spending to stimulate commerce and decrease unemployment

History in Depth
Asia in the G20
The Group of Twenty, known as the G20, is an international group that was founded in 1999 with the goal of promoting discussion of policy affecting the global economy. It forms strategic communications between political leaders and central bank governors. The G20 is comprised of 19 countries, many of which are Asian—China, Japan, India, Indonesia, and the Republic of Korea—and the European Union.

The Asian economies of China, India, Vietnam, and Indonesia have been emerging from the mid- to late 20th and early 21st centuries. The G20 issued a working paper in 2011 predicting that large Asian economies, such as those of China and India, would play a more prominent role in the global economy over time. The G20 works to promote sustainable, balanced growth within an Asian intraregional trade market while also encouraging domestic demand.
Globalization

Globalization can be described in broad terms as a process that makes something worldwide in its reach or operation. Currently, globalization is most often used in reference to the spread and diffusion of economic or cultural influences. The graphics below focus on economic globalization. The first shows a global corporation. The second lists some arguments for and against economic globalization.

Global Corporation

Many countries have joined international organizations to help regulate and stimulate the global economy. Such groups face the same criticisms against globalization in general.

WORLD TRADE ORGANIZATION (WTO)
- Stated goal: “Help trade flow smoothly, freely, fairly, and predictably”
- About 160 member nations; around 25 nations negotiating for admission
- WTO members account for about 95 percent of world trade.

INTERNATIONAL MONETARY FUND (IMF)
- Stated goal: “Promote international monetary cooperation; to foster economic growth and high levels of employment; and to provide temporary financial assistance to countries”
- 188 member countries
- In September 2015, IMF total resources were $334 billion.

THE WORLD BANK GROUP
- Stated goal: “A world free of poverty”
- 5 organizations
- In 2015, this group provided $42.5 billion to emerging countries.

Arguments for and Against Economic Globalization

<table>
<thead>
<tr>
<th>For</th>
<th>Against</th>
</tr>
</thead>
<tbody>
<tr>
<td>promotes peace through trade</td>
<td>creates conflict because of an inherently unfair system</td>
</tr>
<tr>
<td>raises the standard of living around the world</td>
<td>benefits developed nations disproportionately</td>
</tr>
<tr>
<td>creates jobs in emerging countries</td>
<td>takes jobs from high-paid laborers in developed countries</td>
</tr>
<tr>
<td>promotes investment in less developed countries</td>
<td>benefits those who already have money</td>
</tr>
<tr>
<td>creates a sense of world community</td>
<td>erodes local cultures</td>
</tr>
</tbody>
</table>

Critical Thinking

1. Make Inferences  How do developed countries influence culture around the world?
2. Predict  How will increased globalization impact the 21st century?
European Central Bank provided a loan of 110 billion euro to help finance Greece’s debt. This was followed a year later with an additional loan of 130 billion euro and the restructuring of private bank debt. The World Bank also provided financial support and partnered with the IMF and EU on assistance programs.

**Impact of Global Development**

The development of the global economy has had a notable impact on the use of energy and other resources. Worldwide demand for resources has led to both political and environmental 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 emerging nations has been oil. For nations with little of this resource available in their own land, disruption of the distribution of oil causes economic and political problems.

On the other hand, nations possessing oil reserves have the power to affect economic and political situations in countries all over the world. For example, in the 1970s the Arab members of the Organization of Petroleum Exporting Countries (OPEC) declared an oil embargo—a restriction of trade. This contributed to a significant economic decline in many developed nations during that decade. The OPEC crisis also caused a shift in international relations and changes in foreign policies. For example, as a result of the embargo, many developed countries changed their policies toward the Arab-Israeli conflict.

In 1990, Iraq invaded Kuwait and seized the Kuwaiti oil fields. Fears began to mount that Iraq would also invade Saudi Arabia, another major source of oil. This would have destabilized Saudi Arabia and put most of...
the world’s petroleum supplies under Iraqi control. Economic sanctions imposed by the UN failed to persuade Iraq to withdraw from Kuwait. Then, in early 1991, a coalition of some 39 nations declared war on Iraq. After several weeks of fighting, the Iraqis left Kuwait and accepted a cease-fire. This Persian Gulf War showed the extent to which the economies of nations are globally linked.

**Environmental Impacts** Economic development has had a major impact on the environment. The burning of coal and oil as an energy source releases carbon dioxide and other gases into the atmosphere, causing health-damaging pollution and acid rain. The buildup of carbon dioxide in the atmosphere also contributes to global warming.

The release of chemicals called chlorofluorocarbons (CFCs), used in refrigerators, air conditioners, and manufacturing processes, has depleted the ozone layer in 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 Earth’s surface, the incidence of skin cancer continues to rise in many parts of the world. Increased ultraviolet radiation also may result in damage to populations of plants and plankton at the bases of the food chains, which sustain all life on Earth.

---

**Ozone Levels**

A large area of the ozone layer has become much thinner in recent years.
Economic development has also led to problems with 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 led to shrinking numbers of wildlife around the world. At present, the extinction rate of plants and animals is about a thousand times greater than it would naturally be, and it appears to be increasing. This high extinction rate means that certain species can no longer serve as an economic resource. The resulting loss of wildlife could endanger complex and life-sustaining processes that keep Earth in balance.

**Sustainable Development** Working together, economists and scientists are looking for ways to reduce the negative effect that development has on the environment. Their goal is to manage development so that growth can occur without destroying air, water, and land resources. The concept is sometimes called “green growth.” Many people feel that the negative impact of economic growth on the environment will not be completely removed.

But “green growth,” also known as **sustainable development**, is possible. This involves creating economic growth while preserving the environment. Making such plans and putting them into practice have proved to be difficult. Because the economies of nations are tied to their political institutions, such development plans will depend on the efforts of nations in both economic and political areas.

---

**Lesson 2 Assessment**

1. **Organize Information** Create a web to list the forces that shape the global economy. Explain which of these forces has had the greatest impact on the development of a global economy.

2. **Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.

---

**Reading Check**

Analyze Issues

Explain the influence and importance of the petroleum industry in world politics and in the global economy.
Global Security Issues

The Big 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.

Key Terms and People
supranational union
refugee
proliferation
Universal Declaration of Human Rights
nonbinding agreement
political dissent
gender inequality
AIDS
refugees

Setting the Stage
World War II was one of history’s most devastating conflicts. More than 55 million people died as a 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 these horrors, world leaders look for ways to make the earth a safer, more secure place to live.

Issues of War and Peace
In the years after World War II, the Cold War created new divisions and tensions among the world’s nations. This uneasy situation potentially threatened the economic, environmental, and personal security of people across the world. So, nations began to work together to pursue collective security.

Nations Unite and Take Action
Many nations consider that having a strong military is important to their security. After World War II, nations banded together to create military alliances. They formed the North Atlantic Treaty Organization (NATO), the Southeast Asia Treaty Organization (SEATO), the Warsaw Pact, and others. The member nations of each of these alliances generally pledged military aid for their common defense.

In addition to military alliances to increase their security, some world leaders also took steps to reduce the threat of war and promote political and economic unity through the creation of supranational unions. Supranational refers to something extending beyond national boundaries. One such supranational union was the European Economic Community (EEC), created in 1957 to unify its member states’ economies. In 1993 the EEC became part of the European Union, which carried on the EEC’s mission and pursued additional goals related to justice, foreign policy,
to impose an economic or political penalty on another country in order to force a change in that country’s policy.

**Peacekeeping Activities** One of the major aims of the UN is 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. At the invitation of the warring parties, the UN also provides peacekeeping forces. These forces are made up of soldiers from different nations. They work to carry out peace agreements, monitor ceasefires, or end fighting to allow peace negotiations to go forward. They also help to move refugees, deliver supplies, and operate hospitals. A refugee is a person who leaves his or her country to find safety in another country.

As of October 2015, the UN had more than 100,000 soldiers, military observers, and police in 16 peacekeeping operations around the world. Some forces, such as those in India, Pakistan, and Cyprus, have been in place for decades.

**Weapons of Mass Destruction** Nations not only have worked to prevent and contain conflicts, but 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 the Soviet Union signed the Strategic Arms Limitation Treaties. In the 1980s, both countries talked about deactivating some of their nuclear weapons. Many nations also signed treaties promising not to produce biological or chemical weapons. Still, at least nine countries are known to possess nuclear weapons, while others are believed to be trying to develop them.

One difficulty in controlling nuclear weapons is that nuclear technology can be used for legitimate purposes, such as generating energy. Many countries and international organizations try to ensure that nuclear technology is used safely. For example, the International Atomic Energy Agency (IAEA) routinely monitors countries suspected of developing nuclear weapons. In addition, countries may sanction other nations they consider to be nuclear threats.

**War in Iraq** Other nations, however, have tried to develop weapons of mass destruction (WMD). Iraq, for example, used chemical weapons in conflicts during the 1980s. Many people suspected that the Iraqi leader, Saddam Hussein, had plans to develop biological and nuclear weapons too. As part of the cease-fire arrangements in the Persian Gulf War, Iraq agreed to destroy its weapons of mass destruction. UN inspectors were sent to monitor this disarmament process. However, in 1998, the Iraqis ordered the inspectors to leave.
In 2002, analysts once again suspected that Hussein might be developing WMD. UN weapons inspectors returned, but Hussein seemed reluctant to cooperate. U.S. President George W. Bush argued that Hussein might be close to building powerful weapons to use against the United States or its allies. In March 2003, Bush ordered American troops to invade Iraq. Troops from Great Britain and other countries supported the attack. After four weeks of fighting, Hussein’s government fell.

However, violence in Iraq continued. Factions of Iraqis battled one another for power in the new government. Iraqis angered by the presence of foreign troops in their country fought American soldiers. By the end of 2011, untold thousands of Iraqis and more than 4,486 Americans had been killed. No WMD were ever found.

Chaos in Somalia From 1969 to 1991, a dictator named Mohamed Siad Barre ruled Somalia. Barre banned political parties and arrested or executed political rivals. In 1973, he signed a treaty with the Soviet Union and then enacted Soviet-style economic reforms. The state took control of banks and many businesses. Barre also increased the size of Somalia’s military. Beginning in the late 1970s, various clans challenged Barre’s rule. In 1991, Barre fled when clan-based militias defeated his military. Those militias then began to fight each other. They killed thousands of civilians in their attempt to gain control of the country. Fighting and mass killings continued for years.

Between 1991 and 2004, there were multiple attempts to negotiate a government. In 2004, the Transitional Federal Government (TFG) was created. Around that time, Somali Islamist groups, including the Islamic Courts Union (ICU) and other affiliated militias, emerged. Concerned
Analyze Motives

Why did nations join supranational organizations in the decades after World War II?

Vocabulary

transitional government a temporary government that prepares the way for elections to establish a permanent government

about terrorist activity in Somalia, the United States began helping the TFG. In 2006, U.S.-backed Ethiopian troops invaded Somalia to support the TFG against the Islamist militias. In 2009, Ethiopian troops withdrew from Somalia. As a result, the TFG lost territory and agreed to a power-sharing deal with Islamist splinter groups. One such group, al Shabaab, separated from the ICU and rejected the peace deal. It continues to operate as a militant group that commits acts of terrorism. Somalia's government is still transitional.

Ethnic and Religious Conflicts Violence caused by ethnic and religious hatred is a threat to people in many parts of the world. Some conflicts among people of different ethnic or religious groups have roots centuries old. Such conflicts include those between Protestants and Catholics in Ireland, between Palestinians and Israelis in the Middle East, and between Serbs, Bosnians, and Croats in southeastern Europe.

These conflicts have led to terrible violence. The Kurds of southwest Asia have also been the victims of such violence. For decades, Kurds have wanted their own country. But their traditional lands cross the borders of three countries—Turkey, Iran, and Iraq. In the past, the Turks responded to Kurdish nationalism by forbidding Kurds to speak their native language. The Iranians also persecuted the Kurds, attacking them over religious issues. In the late 1980s, the Iraqis dropped poison gas on the Kurds, killing 5,000. Several international organizations, including the UN, worked to end the human rights abuses inflicted upon the Kurds.

In Rwanda, people of the Hutu ethnic group massacred nearly 1 million people of the Tutsi group. They also killed thousands of Hutus who opposed the killings. Another 2 million Tutsi and Hutu refugees fled to neighboring countries, where food shortages and disease killed thousands more, despite international humanitarian aid. As part of a peacekeeping mission, French and UN troops worked to maintain a ceasefire in Rwanda until a new government could establish order and end the violence. In 1998, some of the people involved in the conflict were tried by the International Criminal Tribunal for Rwanda (ICTR). They were charged with genocide, crimes against humanity, and war crimes. Many were convicted and sentenced to life in prison or executed for their crimes.

A similar situation occurred in the 2000s in the Darfur region of Sudan. There, Arab militias supported by the government attacked African villagers and looted and destroyed their homes. The African Union sent a peacekeeping force to Sudan to try to end the killings, but the violence continued. By 2006, some 400,000 people had been killed in Darfur, and more than 2 million others had fled to refugee camps. In 2011, the southern region of Sudan became a separate state, South Sudan. Unfortunately, a civil war erupted in South Sudan in 2013, and thousands died before a tentative peace agreement was reached in August 2015. Ethnic and religious violence continues in Sudan and South Sudan today.
Human Rights Issues

In 1948, the UN issued the **Universal Declaration of Human Rights**, which set human rights standards for all nations. The declaration listed specific rights, such as the right to liberty and the right to work, that all human beings should have. Later, in the Helsinki Accords of 1975, the UN addressed the issues of freedom of movement and freedom to publish and exchange information.

Both the declaration and the accords are **nonbinding agreements**. A nonbinding agreement means that a nation does not suffer a penalty if it does not meet the terms of the declaration. However, the sentiments in these documents inspired many people around the world. They made a commitment to ensuring that basic human rights are respected. The UN and other private international agencies, such as Amnesty International, identify and publicize human rights violations. They also encourage people to work toward a world in which liberty and justice are guaranteed for all.

Some of the greatest human rights successes have come in the area of political rights and freedoms. In Europe, most countries that were once
Vocabulary
nongovernmental organization
a nonprofit group set up by private citizens, businesses, or groups

part of the Soviet bloc have opened up their political systems to allow for democratic elections and the free expression of ideas. There have been similar successes in South Africa, where the apartheid system of racial separation came to an end in the early 1990s. Free elections held in South Africa in 1994 finally brought a multiracial government to power.

Combatting Human Rights Abuses Many multinational organizations combat human rights abuses. Non-governmental organizations (NGOs) like Amnesty International and Human Rights Watch research and publicize abuses and campaign to end them. Human Rights Watch’s annual world reports detail human rights issues and policy developments around the globe, and the organization works with governments and institutions to promote human rights in more than 90 countries and territories. These and other NGOs have played key roles in the fights against slavery, violence against women, and apartheid. Other groups such as the International Red Cross and Red Crescent are charitable NGOs that offer free assistance to people in times of crisis.

Intergovernmental organizations also play a role. The International Criminal Court (ICC), housed in the Netherlands, prosecutes individuals for genocide, crimes against humanity, and war crimes. By 2015, the ICC had investigated nine situations, including the human rights violations in Darfur.

Continuing Rights Violations Despite the best efforts of various human rights organizations, protecting human rights remains an uphill battle. Serious violations of fundamental rights continue to occur around the world.

History in Depth

Human Rights Movements

Human rights movements resisting colonialism, imperialism, slavery, racism, apartheid, patriarchy, and other abuses have reshaped political, social, and economic life around the world. A human rights movement is a social movement that responds to human rights issues. Many national and international government organizations and NGOs have been dedicated to such movements, and the most successful campaigns usually involve a number of organizations working together for a common goal.

Recognizing this, the National Economic and Social Rights Initiative (NESRI) decided to work with many community organizations across the United States. Founded in 2004, NESRI organizes and supports initiatives to integrate social and economic rights into American laws and political culture. Economic and social rights include access to safe work with fair wages; affordable, quality health care; education; nutritious food; and safe, affordable housing.

Analyze Issues
Which human rights does NESRI promote in the United States?
One type of violation occurs when governments try to stamp out political dissent, or the difference of opinion over political issues. In many countries around the world, from Cuba to Iran to Myanmar, individuals and groups have been persecuted for holding political views that differ from those of the people in power. In some countries, like Sudan, ethnic or racial hatreds lead to human rights abuses.

**Women's Status Improves** In the past, when women in Western nations entered the workforce, they often faced 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, women have often been victims of violence and abuse. As women suffered, so have their family members, especially children.

In the 1970s, a heightened awareness of human rights encouraged women in many countries to work to improve their lives. They pushed for new laws and government policies that gave them greater equality. In 1975, the UN held the first of several international conferences on women's status in the world. The UN also sponsored a movement toward gender equality, and most countries signed the Convention on the Elimination of All Forms of Discrimination Against Women (1979). In Southeast Asia, all but a few nations, such as Vietnam and Laos, have ratified the treaty. 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.

---

**Mother Teresa** (1910–1997)

Mother Teresa was one of the great champions of human rights for all people. Born Agnes Gonxha Bojaxhiu in what today is Macedonia, Mother Teresa joined a convent in Ireland at the age of 18. A short time later, she headed to India to teach at a girls' school. Over time, 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 in Calcutta, which committed itself to serving the sick, needy, and unfortunate. In recognition of her commitment to the downtrodden, Mother Teresa received the Nobel Peace Prize in 1979.
In its report *Progress of the World’s Women 2015–2016*, the UN found that women had made notable gains in many parts of the world, especially in the areas of education and work. Even so, the report concluded that *gender inequality*—the difference between men and women in terms of wealth and status—still very much exists. It cites discrimination in health care, political representation, employment, and education as reasons for the continued imbalance between men and women.

**Health Issues**

In recent decades, the enjoyment of a decent standard of health has become recognized as a basic human right. However, for much of the world, poor health is the norm. World health faced a major threat in 2003, with the outbreak of severe acute respiratory syndrome (SARS). This pneumonia-like disease emerged in China and spread worldwide. Afraid of infection, many people canceled travel to Asia. The resulting loss of business hurt Asian economies.

**The AIDS Epidemic** One of the greatest global health issues is a disease known as *AIDS*, or acquired immune deficiency syndrome. It attacks the immune system, leaving sufferers open to deadly infections. The disease was first detected in the early 1980s. Since that time, AIDS has become a global pandemic: it has claimed the lives of nearly 39 million people worldwide. By the end of 2014, there were almost 37 million people across the world living with HIV (the virus that causes AIDS) or AIDS. And in 2014, two million people were newly infected with HIV.
While AIDS is a worldwide problem, sub-Saharan Africa has suffered most from the epidemic. About 70 percent of all persons infected with HIV live in this region. And in 2014, more than 1.1 million Africans died of AIDS. Many of the people dying are young adults—the age when people are at their most productive economically. AIDS, therefore, is reducing the number of people available as workers, managers, and entrepreneurs.

Since the 1990s the world has made some progress in slowing the spread of AIDS. In response to the devastating impact of the disease, the UN issued the Declaration of Commitment on HIV/AIDS in 2001. This document set targets for halting the spread of AIDS and provided guidelines on how countries could pool their efforts.

**Other Health Issues** Other diseases also threaten world health. For example, in 2015, there were about 214 million malaria cases and an estimated 438,000 malaria deaths. The UN and other global organizations are working to reduce outbreaks of the disease worldwide. As a result, there has been an increase in resources available for prevention and treatment. Cases of tuberculosis are increasing in some regions, and the ability of medical professionals to cure this disease and others caused by bacteria is in jeopardy, as some antibiotics have lost their effectiveness against drug-resistant bacteria.

**Syrian Civil War**

In 2011, Syrian prodemocracy protesters demanded the resignation of President Bashar al-Assad. In response, the government used military force to end the protests and silence opposition. Violence soon escalated, and a civil war broke out as rebel groups formed to fight against government forces for control of cities and towns. After years of fighting, the conflict has grown into a struggle between the Sunni Muslim majority and the president’s Shia Muslim sect. The growth of insurgent groups, such as the Islamic State of Iraq and the Levant (ISIL), have furthered the conflict.

As a result of the civil war, more than 220,000 Syrians have lost their lives and more than 11 million have been forced to leave their homes. According to human rights organizations, at least 7 million Syrians have been displaced within Syria, and more than 4 million have fled as refugees to neighboring countries, mostly Turkey, Lebanon, Jordan, and Iraq.
Population Movement

The global movement of people has increased dramatically in recent years. This migration has taken place for both negative and positive reasons.

**Push-Pull Factors** People often move because they feel pushed out of their homelands. Lack of food due to drought, natural disasters, and political oppression are examples of push factors of migration. At the end of 2014, the number of refugees stood at 19.5 million. Millions more were displaced within their home countries.

Not only negative events push people to migrate. Most people have strong connections to their home countries and do not 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. Many of these people eventually become citizens. Others do not, perhaps because they entered the country illegally. Although their rights are limited, even non-citizens have responsibilities in civic participation, such as paying taxes.

**Effects of Migration** Everyone has the right to leave his or her country. However, the country to which a migrant wants to move may not accept that person. The receiving country might 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 people have no place to go. Crowded into refugee camps, often under squalid conditions, these migrants face a very uncertain future.

Those accepted into new countries face many challenges and opportunities. In their adopted countries, they often have more services and opportunities available to them, such as health care, education, and jobs. However, it may be difficult to obtain those services due to language barriers, cost, or lack of knowledge about how to access services. If immigrants don’t speak the adopted country’s language or if job training obtained in their home country isn’t considered valid in the receiving country, they may struggle to find work. Once they do, however, they can sometimes reduce the economic struggles of family and friends still in their home country by sending money to them. At the same time, immigrants bring their home cultures to their adopted countries, helping to create a rich, diverse blended culture.

Immigrants often help offset labor shortages in a variety of industries. Nevertheless, some citizens in receiving countries believe that immigrants take more than they give, a belief that can lead to policies intended to reduce immigration. For example, in Canada, where about 250,000 immigrants arrive each year, government policies enacted in 2015 made it more difficult to obtain Canadian citizenship. Some believe this change is a reaction to recent economic difficulties and job scarcity, because in the past Canada has served as a model for immigration.

Lesson 3 Assessment

1. Use a table to note the methods of global security and examples of each method. Explain which methods have resulted in the greatest contribution to global security.

<table>
<thead>
<tr>
<th>Method</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form military alliances</td>
<td>NATO, SEATO, Warsaw Pact</td>
</tr>
</tbody>
</table>

2. **Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.

3. **Make Inferences** Why might nations want to retain or develop an arsenal of nuclear, biological, and chemical weapons?

4. **Analyze Effects** How have conflict and cooperation among groups impacted the control of limited resources in the world?

5. **Evaluate** What strategies have been used to resolve conflicts in society and government? Do you think they have been effective?

6. **Identify Problems** How are ethnic and religious conflicts related to problems of global security?

7. **Recognize Effects** How can individuals affect social conditions around the world? Consider the example of Mother Teresa when writing your answer.
Setting the Stage
Wars are not the only threat to international peace and security. Terrorism, the use of violence against noncombatants to force changes in societies or governments, strikes fear in the hearts of people everywhere. Recently, terrorist incidents have increased dramatically around the world. Because terrorists often cross national borders to commit their acts or to escape to countries friendly to their cause, most people consider terrorism an international problem.

What Is Terrorism?
Terrorism is not new. Throughout history, individuals, small groups, and governments have used terror tactics to try to achieve political or social goals, whether to bring down a government, eliminate opponents, or promote a cause. In recent times, however, terrorism has changed.

Modern Terrorism
Since the late 1960s, tens of thousands of terrorist attacks have occurred worldwide. International terrorist groups have carried out increasingly destructive, high-profile attacks to call attention to their goals and to gain major media coverage. Many countries also face domestic terrorists who oppose their governments’ policies or have special interests to promote.

The reasons for modern terrorism are many. The traditional motives, such as gaining independence, expelling foreigners, or changing society, still drive various terrorist groups. These groups use violence to force concessions from their enemies, usually the governments in power. But other kinds of terrorists, driven by radical religious and cultural motives, began to emerge in the late 20th century.

The goal of these terrorists is the destruction of what they consider to be evil. This evil might be located in their own countries or in other parts of the world. These terrorists are willing to die to ensure the success of their attacks.
**Terrorist Methods** Terrorist acts involve violence against noncombatants. The weapons most frequently used by terrorists are the bomb and the bullet. The targets of terrorist attacks often are crowded places where people normally feel safe—subway stations, bus stops, restaurants, or shopping malls, for example. Or terrorists might target something that symbolizes what they are against, such as a government building or a religious site. Such targets are carefully chosen in order to gain the most attention and to achieve the highest level of intimidation.

Recently, some terrorist groups have used biological and chemical agents in their attacks. These actions involved the release of bacteria or poisonous gases into the atmosphere. While both biological and chemical attacks can inflict terrible casualties, they are equally powerful in generating great fear among the public. This development in terrorism is particularly worrisome, because biochemical agents are relatively easy to acquire. Laboratories all over the world use bacteria and viruses in the development of new drugs. And the raw materials needed to make some deadly chemical agents can be purchased in many stores or online.

**Cyberterrorism** is another recent development. This involves politically motivated attacks on information systems, such as hacking into computer networks or spreading computer viruses. Many governments and businesses now use computers and networks to store data and run operations. Cyberattacks have increased accordingly.

**Responding to Terrorism** Governments take various steps to stamp out terrorism. Most adopt a very aggressive approach in tracking down and punishing terrorist groups. This approach includes infiltrating the groups to gather information on membership and future plans. It also includes striking back harshly after a terrorist attack, even to the point of assassinating known terrorist leaders.

Another approach governments use is to make it more difficult for terrorists to act. This involves eliminating extremists’ sources of funds, persuading governments not to protect or support terrorist groups, and tightening security measures.
Terrorism Around the World

The problem of modern international terrorism first came to world attention in a shocking way during the 1972 Summer Olympic Games in Munich, Germany (then West Germany). Members of a Palestinian terrorist group killed two Israeli athletes and took nine others hostage, later killing them. Palestinian terrorists also used airplane hijackings and suicide bombers. Since then, few regions of the world have been spared from terrorist attacks.

Islamist Movements  Some Muslims believe that society’s laws should be based on what they hold is God’s law as written in the Qur’an. In the mid to late 20th century, some Islamic scholars turned to a strict interpretation of the Qur’an. They felt that Western influences were corrupting Muslim countries. They called for all true Muslims to join a global *jihad*, or struggle, against Western societies and governments.

Many young men radicalized by fundamentalist teachings answered that call. These men, and some women, became the foot soldiers for fundamentalist organizations such as al-Qaeda, Hamas, Hezbollah, and the Taliban. They have been responsible for numerous acts of terrorism.

The Middle East  Many terrorist organizations have roots in the Israeli-Palestinian conflict over land in the Middle East. Groups such as the Palestinian Islamic Jihad, Hamas, and Hezbollah have sought to prevent a peace settlement between Israel and the Palestinians. They want a homeland for the Palestinians on their own terms, deny Israel’s right to exist, and seek Israel’s destruction. In a continual cycle of violence, the Israelis retaliate after most terrorist attacks, and the terrorists strike again. Moderates in the region believe that the only long-term solution is a compromise between Israel and the Palestinians over the issue of land. However, the violence has continued with only occasional breaks.

The Iran-backed Lebanese terrorist group Hezbollah formed after the 1982 Israeli invasion of Lebanon to fight the Israeli occupation of South Lebanon. One of the group’s primary goals is the destruction of the state of Israel. In July 2006, Hezbollah kidnapped two Israeli soldiers and fired rockets into Israel, triggering a month-long conflict between Israel and Lebanon.

Europe  Many countries in Europe have been targets of domestic terrorists who oppose government policies. For decades the mostly Catholic Irish Republican Army (IRA) engaged in terrorist attacks against Britain because it opposed British control of Northern Ireland. Since 1998, however, the British, the IRA, and representatives of Northern Ireland’s Protestants have been negotiating a peaceful solution to the situation. An agreement was reached in 2005.

In 2002, Israel began building a security barrier to prevent Palestinian suicide bombers from entering Israel. This Palestinian protest took place in 2007.
Other European terrorist groups include the ETA, a militant separatist group that sought independence for the Basque region of Spain, and the left-wing Red Brigades in Italy, which sought to destabilize the Italian government in the 1970s and 1980s before collapsing after many members were arrested. In 2011 the ETA announced a permanent cease-fire.

**Asia** Afghanistan, in Southwest Asia, became a haven for international terrorists after the Taliban came to power in 1996. In that year, Osama bin Laden, a Saudi Arabian millionaire involved in terrorist activities, moved to Afghanistan. There he began using mountain hideouts as a base of operations for his global network of Muslim terrorists known as al-Qaeda.

Terrorist groups have arisen in East Asia, as well. One, known as Aum Shinrikyo ("Supreme Truth"), is a religious cult that wants to control Japan. In 1995, cult members released sarin, a deadly nerve gas, in subway stations in Tokyo. Twelve people were killed and more than 5,700 injured. This attack brought global attention to the threat of biological and chemical agents as terrorist weapons.

In South Asia, the Tamil Tigers (LTTE) in Sri Lanka have used suicide bombings and other terrorist tactics in their fight for an independent state. In 1983, after the LTTE ambushed 13 Sinhalese soldiers, a civil war erupted. Even though a cease-fire agreement was signed by the LTTE and the government in 2002, violence continued. In 2008 the government broke the agreement to pursue and eliminate the leadership of the LTTE, which it achieved the following year.

---

**Interpret Graphs**

1. **Compare** When did the global total of terrorist incidents begin to rise above 5,000?
Africa  Civil unrest and regional wars were the root causes of most terrorist activity in Africa at the end of the 20th century. But al-Qaeda cells operated in many African countries, and several major attacks against U.S. personnel and facilities in Africa were linked to al-Qaeda. In 1998, for example, bombings at the U.S. embassies in Kenya and Tanzania left more than 200 people dead and more than 5,000 injured. The United States responded to these attacks with missile strikes on suspected terrorist facilities in Afghanistan and in Sudan, where bin Laden was based from 1991 to 1996.

Latin America  Narcoterrorism, or terrorism linked to drug trafficking, is a major problem in Latin America, particularly in Colombia. The powerful groups that control that country's narcotics trade have frequently turned to violence. The Revolutionary Armed Forces of Colombia (FARC) is a left-wing guerrilla group that has links with these drug traffickers. The FARC has attacked Colombian political, military, and economic targets, as well as those with American ties.

Other Latin American groups were motivated by political ideologies rather than the economics of the drug trade. Shining Path, a militant Communist group founded in 1970 in Peru, sought to overthrow the Peruvian government to replace it with a Communist government. Its 20-year campaign of violence caused tens of thousands of deaths and disrupted the country's economy.

Reading Check
Analyze Causes
What are some reasons for terrorism in various regions of the world?

History in Depth
Drug Trafficking
Drug trafficking is an illegal trade that includes producing, distributing, and selling illegal drugs. From the 1970s to the 1990s, Colombia served as the dominant location in the distribution of cocaine. Criminal organizations known as drug cartels controlled the distribution and sale of cocaine. In recent years, the United States has been working with the Colombian government as part of the Plan Colombia program. The Plan Colombia program provided hundreds of millions of dollars per year for military aid, training, and equipment to fight the FARC and other guerrilla forces involved in drug trafficking.

At the height of Colombian drug trafficking and cartel control, illegal gang and criminal activity related to drug trafficking arose. These activities, as well as economic opportunities, drove local residents to migrate to other countries, including the United States. Once working in their new countries, many of these immigrant workers sent their salaries back to family members in their home country. Once economic conditions and security improve in their home country, they often return.
Case Study

September 11, 2001

Attack on the United States

On the morning of September 11, 2001, nineteen Arab terrorists hijacked four airliners heading from East Coast airports to California. In a series of coordinated strikes, the hijackers crashed two of the jets into the twin towers of the World Trade Center in New York City and a third into the Pentagon outside Washington, DC. The fourth plane crashed in an empty field in Pennsylvania.

The Destruction

The planes, loaded with fuel, became destructive missiles when they crashed into the World Trade Center and the Pentagon. The explosions and fires so weakened the damaged skyscrapers that they crumbled to the ground less than two hours after impact. The fire and raining debris caused nearby buildings to collapse as well. The damage at the Pentagon, though extensive, was confined to one section of the building.

The toll in human lives was great. Nearly 3,000 people died in the attacks. All passengers on the four planes were killed, as well as workers and visitors in the World Trade Center and the Pentagon. The dead

DOCUMENT-BASED INVESTIGATION

President George W. Bush

Two months after the 9/11 attacks, U.S. President George W. Bush addressed the United Nations General Assembly to discuss terrorism.

Analyse Historical Sources

Describe the global security responsibilities of all United Nations members.

“"The most basic obligations in this new conflict have already been defined by the United Nations.... Every United Nations member has a responsibility to crack down on terrorist financing. We must pass all necessary laws in our own countries to allow the confiscation of terrorist assets. We must apply those laws to every financial institution in every nation.

We have responsibility to share intelligence and coordinate the efforts of law enforcement. If you know something, tell us. If we know something, we’ll tell you. And when we find the terrorists, we must work together to bring them to justice.... We have a responsibility to deny weapons to terrorists....”

—George W. Bush
included more than 340 New York City firefighters and 60 police officers who rushed to the scene to help and were buried in the rubble when the skyscrapers collapsed.

**The Impact of the Attack**  September 11 had a devastating impact on the way Americans looked at life. Many reported feeling that everything had changed—that life would never be the same. Before, Americans had viewed terrorism as something that happened in other countries. Now they felt vulnerable and afraid.

   This sense of vulnerability was underscored just a few days after September 11, when terrorism struck the United States again. Letters containing spores of a bacterium that causes the disease anthrax were sent to people in the news media and to members of Congress in Washington, DC. Anthrax bacteria, when inhaled, can damage the lungs and cause death. Five people who came in contact with spores from the tainted letters died of inhalation anthrax. Two were postal workers.

   Investigators did not find a link between the September 11 attacks and the anthrax letters. Some of them believed that the letters might be the work of a lone terrorist rather than an organized group. Regardless of who was responsible for the anthrax scare, it caused incredible psychological damage. Many Americans were now fearful of an everyday part of life—the mail.

---

**Reading Check**

Make Inferences

Why were the specific targets of the September 11 attacks selected by the terrorists?

---

**History in Depth**

**Destruction in New York City and the Pentagon**

▲ Stunned bystanders look on as smoke billows from the twin towers of the World Trade Center.

▲ A hazardous materials team prepares to enter a congressional building during the anthrax scare.

▲ The strike on the Pentagon left a charred, gaping hole in the southwest side of the building.
The United States Responds

Immediately after September 11, the United States called for an international effort to combat terrorist groups. President George W. Bush declared, “This battle will take time and resolve. But make no mistake about it: we will win.”

The Hunt for Osama bin Laden As a first step in this battle, the U.S. government organized a massive effort to identify those responsible for the attacks. Officials concluded that Osama bin Laden directed the terrorists. The effort to bring him to justice led the United States to begin military action against Afghanistan. In spite of this military action, bin Laden managed to elude justice for nearly 10 years. But in 2011, U.S. efforts finally paid off when intelligence experts located his hideout in Abbottabad, Pakistan. On May 2, 2011, U.S. Navy commandos raided bin Laden’s fortified compound and killed the terrorist leader.

Antiterrorism Measures The federal government warned Americans that additional terrorist attacks were likely. It then took action to prevent such attacks. The Department of Homeland Security was created in 2002 to coordinate national efforts against terrorism. Antiterrorism measures included a search for terrorists in the United States and the passage of antiterrorism laws. Officials began detaining and questioning other Arabs and other Muslims whose behavior was considered suspicious or who had violated immigration regulations.

Some critics charged that detaining these men was unfair to the innocent and violated their civil rights. However, the government held that the actions were justified because the hijackers had been Arabs. The government further argued that it was not unusual to curtail civil liberties during wartime in order to protect national security. This argument was also used to justify a proposal to try some terrorist suspects in military tribunals rather than in criminal courts. On October 26, 2001, President Bush signed an antiterrorism bill into law. The law, known as the USA PATRIOT Act, allowed the government to

- detain foreigners suspected of terrorism for seven days without charging them with a crime
- tap all phones used by suspects and monitor their e-mail and Internet use
- make search warrants valid across states
- order U.S. banks to investigate sources of large foreign accounts
- prosecute terrorist crimes without any time restrictions or limitations

Again, critics warned that these measures allowed the government to infringe on people’s civil rights.
Aviation Security  The federal government also increased its involvement in aviation security. The Federal Aviation Administration (FAA) ordered airlines to install bars on cockpit doors to prevent passengers from gaining control of planes, as the hijackers had done. Sky marshals—trained security officers—were assigned to fly on planes, and National Guard troops began patrolling airports.

The Aviation and Transportation Security Act, which became law in November 2001, made airport security the responsibility of the federal government. Previously, individual airports had been responsible. The law provided for a federal security force that would inspect passengers and carry-on bags. It also required the screening of checked baggage.

Airline and government officials debated these and other measures for making air travel more secure. Major concerns were long delays at airports and respect for passengers’ privacy. It has also become clear that public debate over security measures will continue as long as the United States fights terrorism and tries to balance national security with civil rights.

Global Effects of Terrorism

For the past 15 years, terrorism has been a pressing global issue. The September 11, 2001, attacks in the United States and subsequent attacks around the world have heightened focus on the issue and its effects.

Global Security  Many countries have faced security issues since 9/11. Bomb attacks on trains and buses in Madrid, London, and Jerusalem spurred Spain, Great Britain, and Israel to investigate ways to use technology to improve security for their transportation systems. Officials hoped that these measures would help to prevent future terrorist attacks.

Many countries have also increased security in other public spaces and at public events, including government buildings, tourist attractions, and public gatherings during festivals, celebrations, and holidays. Many Western countries and some Middle Eastern countries started working together to share intelligence about possible terrorists and terrorist activities. They use surveillance technology to track and record the actions of suspicious people or groups.

Impacts on Economy, Society, and Politics  Terrorist attacks have ripple effects through various aspects of society. The economic effects include loss of property, loss of lives, and costs of additional security measures. The insecurity that the population feels after an attack or in anticipation of an attack affects the stock market and international investments. This was a major factor after the 9/11 attacks. Terrorist groups such as al-Qaeda want to disrupt financial institutions worldwide as this builds fear and can lead to financial and economic insecurity. In 2007, al-Qaeda developed a new strategy for attacking the United States by cutting off its energy supply. The attack failed, but had it been successful it would have crippled transportation industries globally and world economies would have been paralyzed. Militants of the terrorist group called Islamic State of Iraq and the Levant (ISIL), also known as ISIS, attacked two separate sites.
in Tunisia in March and June 2015 and killed 60 people. These terrorist incidents affected the country’s tourism industry, a mainstay of its economy. Many people who had planned to visit Tunisia canceled their plans because they feared another attack.

Political effects of terrorism include the destabilization of the government, especially when political leaders are assassinated and new leaders replace them. This could result in a change in a government’s policies related to combatting terrorism. However, governments may cooperate with other governments or form military agreements in order to stop terrorism or terrorist activity. This form of global cooperation to fight terrorism has been effective. For example, coalition forces, including the United States military, launched a successful airstrike against several ISIL leaders in September 2015. Yet combating terrorism causes financial strain. Government leaders must weigh cutting domestic programs in order to fund programs and military spending to fight terrorism.

<table>
<thead>
<tr>
<th>World Terrorist Incidents</th>
<th>September 11 Attacks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Passengers wait to go through a security check at La Guardia Airport in New York.

**Reading Check**

**Compare**

What issues must a government address when combatting terrorism?

**Lesson 4 Assessment**

1. Complete a chart to compare and contrast world terrorist incidents and the September 11 terrorist attacks. Explain how the September 11 attacks were unique and how they were similar to other terrorist incidents.

2. **Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.

3. **Analyze Motives** What might cause individuals to use terror tactics to bring about change?

4. **Form Opinions** Is it important for the U.S. government to respect peoples’ civil rights as it wages a war against terrorism? Why or why not?

5. **Draw Conclusions** What are the wider international consequences of terrorist attacks?
Environmental Challenges

The Big Idea
Technology, population growth, and industrialization have created environmental challenges that have affected the entire world.

Why It Matters Now
Failure to solve environmental problems will threaten the health of the planet.

Key Terms and People
- desertification
- greenhouse effect
- conservation

Setting the Stage
As the world’s population increases, so do people’s demands on the environment. Technology and industrialization have helped to raise standards of living for many people. But they have also affected the global environment. For two centuries, industrialization has increased the demands for energy and natural resources. In addition, industry and technology have increased the amount of pollution on the planet. Pollution and the potential shortage of natural resources have prompted everyone from world leaders to ordinary citizens to look for ways to better protect our natural surroundings.

Development and Population Pressures
The environment has been altered greatly by industrialization and human population growth. As societies have became more sophisticated and developed, populations have increased, resulting in a greater need for resources. As the global population increases, so have industrialization and technology, which have had negative effects on the environment.

Industrialization
The Industrial Revolution, which began in Great Britain in the late 1700s, changed human life and greatly impacted the relationship that humans have with the environment. In the process of industrialization, the use of machines replaced human labor in Europe and later North America and other parts of the world. Industrialization affected many aspects of basic human needs, such as food, housing, and clothing. Industrialization produced products faster and in greater quantities. However, this new standard of living took a toll on the environment. Industries relied on fossil fuels for energy sources, including coal, natural gas, and oil. Because of this reliance on the burning of fossil fuels, industrialization caused pollution and many other
environmental problems that our world faces today. The negative effects of industrialization include global warming, air quality deterioration, oil spills, and acid rain.

**Population Growth and Distribution** Rapid population growth has also impacted the environment. This growth has challenged governments and societies because it is tied to the increased use of energy and other natural resources, land for agriculture and housing, and waste. In addition to increasing pollution and use of resources, rapid population growth has altered the land. Humans are modifying the environment through deforestation to meet the needs of a growing population, which sometimes leads to **desertification**, the process of land becoming desert. These conditions have caused the rapid extinction of many species.

Advancements in technology and medicine contribute to rapid population growth. The United Nations estimated in 2015 that the world population was about 7.3 billion. Because the birth rate is double the death rate, global population is projected to climb to more than 9 billion by 2050. The world’s growing population is not spread evenly across the globe. Africa, for example, is one of the least developed continents. It is expected to supply more than half of the world’s population growth between now and 2050.

The world’s increasing population is also unevenly distributed among age brackets. About one-quarter of the world’s population is under 15 years of age. This substantially large youth population provides countries, especially those that are least developed, with great economic potential.

### Forecast for World Population

![Forecast for World Population Graph](source)

**Interpret Graphs**

**Analyze Issues** Which continent is expected to have the fastest population growth between 2020 and the year 2050?
Many of the least developed countries have the largest growing youth populations. When these young people reach working age, their countries will be able to supply a large workforce and perhaps strengthen and expand their economies.

At the same time, according to the World Health Organization (WHO), people are living longer, which places a burden on a young workforce to support an aging population. In 2013, the WHO estimated that the average global life expectancy was 71 years. The causes of this longevity are better nutrition, sanitation, health care, and economic success. The effects of an aging population include social and economic challenges such as providing short- or long-term care.

**Population Policies** Some regions of the world have enacted population control policies to alter the population growth rate. They have put these policies in place because of concerns about global population growth and its effects on poverty, environmental degradation, and political stability. Some examples of these policies and the countries that implemented them include the following:

**China:** The one-child policy in China had a significant impact on its population. Beginning in the 1980s, the government imposed harsh fines and other sanctions on most Chinese couples who had more than one child. To encourage couples to follow the policy, the government made contraceptives widely available and offered financial and career incentives. The policy led to an increase in the number of girls being placed for adoption and in sex-selective abortions. As a result, China experienced a shortfall in the female population, creating a higher ratio of boys over girls. In March 2016 the government relaxed its rules to allow all couples to have two children.

**India:** The Indian government has tried to control its rapid population growth rate through family planning measures, such as the distribution of contraceptives. The central government develops family planning programs and helps states carry them out. The fertility rate in India has declined, but the population still has not reached a stable rate.

**Nigeria:** The extreme effects of overpopulation have been recognized by the Nigerian government, which has created policies to achieve a lower population growth rate. The government emphasizes contraception distribution, family planning, and fertility management.

**Migration** Population distribution on Earth has also been affected by the migration of people. Humans migrate for a variety of reasons. They may be pushed from their home countries because of political instability or pulled to a new country to seek economic opportunities or to join family members. People can also migrate because of environmental factors. For example, severe damage to the environment, either natural or human-created, can leave people with no other choice but to relocate permanently.
One historical example of this type of migration occurred in the United States. In the 1930s, people migrated from the Dust Bowl to the West because they had overfarmed the land. People could no longer cultivate crops, which was the main economic activity in the region.

In Central America, many people have migrated to cities and coastal areas to seek jobs in industry, shipping, or tourism. In Europe, people have mostly migrated from Africa, the Middle East, and South Asia to Spain, the United Kingdom, Germany, Italy, and France. They often wind up in detention centers, where living conditions can be poor. The costs for the European countries have been high, especially in places like Greece that are economically unstable. The European Commission approved a 2.4 billion euro aid package in August 2015, with much of the money going to Greece to help offset the cost of migrant rescue and support efforts.

In coming years, experts predict an increase in migration as a result of environmental degradation. Environmental changes such as global warming can affect the condition and quality of land and water resources. Food shortages, poverty, rapid urbanization, and political instability can result from such environmental changes. Developing countries suffer the most from these changes. As a result, many people in these countries are forced to migrate to new countries or regions where conditions are better or improving.

**Urbanization and Its Effects**  In many parts of the world, people from rural areas who are in search of jobs or more opportunities are moving in large numbers to urban areas. Some urban areas also are growing due to migration from other cities and to rising birthrates. As a result, the population density in some of these cities, especially those in developing countries, is very high. The world’s fastest-growing cities are located in developing countries. The sprawling urban areas of Mumbai, India, and Sao Paulo, Brazil, are examples of rapidly growing cities. Urban growth in developed countries is often much slower, but rapid urbanization is occurring worldwide.
Along with population growth, the redistribution of population from rural to urban areas can affect the earth’s natural systems. Urban development changes the environment—for example, open land is lost when buildings, highways, and railroads are built. Urbanization leads to increased consumption of resources such as food, energy, and water because city dwellers generally have higher incomes and greater access to markets than do rural residents. People who live in urban areas also purchase more durable goods such as appliances and electronics. In the early 1990s, urban Chinese households were two times more likely than rural households to have a television and 25 times more likely to have a refrigerator.

When people alter the natural landscape to meet their needs, they directly affect the environment, including air quality, energy resources, and the local, regional, and global climates. As urban populations continue to grow, planners have to consider many factors when designing or redesigning a city’s layout. One of the most important factors is transportation. Roads, mass transit, bike lanes, and other transport systems help determine a city’s environmental impact as well as the mobility of its residents.

The effects of urbanization spill beyond the urban areas. In developing countries where rapid urbanization is taking place, agriculture must increase to meet food demands. When more crops are planted, land resources run the risk of being overused. In some urban areas, rapid urbanization has removed fertile land from agricultural production to increase space for housing and other buildings. Urbanization has also caused direct loss to animal habitats and vegetation biomass.
As land is cleared for urban growth, the risks of deforestation and desertification increase. Because development and changes in land use also increase the risk of flooding, city governments need to develop systems for flood control. Officials must use stream-flow gaging stations, rainfall records, and other information to guide flood-control operations and emergency action plans such as evacuations.

World Concern over the Environment

Industrial pollution has harmful effects on the earth’s atmosphere. Environmentalists are especially concerned about changes in climates due to global warming caused by human activity.

Global Warming  Scientists use the term greenhouse effect to describe the warming of Earth as a result of the buildup of gases such as carbon dioxide and methane. These gases—sometimes called greenhouse gases—absorb energy radiating from Earth’s surface and slow its loss into space. By keeping this energy in Earth’s atmosphere and surface longer, the greenhouse effect makes the planet warmer.

Most greenhouse gases occur naturally. But human activities such as the combustion of fossil fuels also release greenhouse gases into the atmosphere, causing additional warming. Over the past two centuries, industrialization has led to increased use of petroleum and coal for manufacturing and transportation. Globalization has also raised emissions of greenhouse gases because international trade requires products to be shipped long distances.

Since the Industrial Revolution, the amount of carbon dioxide in the atmosphere has increased by about 35 percent. Average global temperatures have increased over the same period. Many scientists fear that if
Kyoto Protocol

The United Nations has attempted to reduce human effects on the environment by persuading member nations to sign treaties to reduce greenhouse gas emissions. One such effort is the Kyoto Protocol, an international agreement that is an extension of the 1992 United Nations Framework Convention on Climate Change. It was adopted in Kyoto, Japan, in 1997, and currently 192 countries have ratified it. The Protocol commits countries to reduce greenhouse gases emissions in response to global warming. The Protocol puts the responsibility to reduce current emissions on developed nations since they were the original contributors to the current levels of greenhouse gases.

global warming trends continue, deserts will expand, causing crops to fail, and polar icecaps will melt, resulting in a rise in sea levels.

To combat this problem, most industrialized nations have called for limits on the release of greenhouse gases. In the past, developed nations were the worst polluters, but future limits would also have a great effect on those countries that are trying to industrialize. So far, developing countries have resisted strict limits. They argue that they are being asked to carry too much of the burden for reducing greenhouse gases.

Air Pollution The hazardous effects of air pollution can be serious, especially when it comes to people’s health. Many cities in Europe and the United States have recently taken steps to clean up the air. But air pollution is still severe in many parts of the world, especially in Asia where population growth is high. Many of the world’s most polluted cities are in Asia. In countries where population growth is high, rising demand for resources often leads to an increase in pollution. For example, in China, demand for energy soared as the country industrialized. Coal, which is China’s main energy resource, is a major pollutant.

Meanwhile, South Korea, China, and Japan have entered talks to reduce the effects of pollution caused by China’s rapid industrialization. Some cities in China are even trying to reduce air pollution on a local level. Beijing and Shanghai are among the first to implement new emissions standards with the goal of replacing old, polluting cars with new lower-emission-producing cars by 2017.

Depletion of Natural Resources

While air pollution and other environmental problems are major global concerns, so too is the growing strain on natural resources. Vital resources such as clean water, forests, and energy supplies all run the risk of becoming scarce due to industrialization and population growth.
Human Effects on Ecosystems  Humans rely on ecosystems for crop cultivation and production, clean water, and fish and game. They have depended on these resources and settled near them for millennia. For example, the earliest civilizations, which arose in Mesopotamia, settled near riverbanks to meet their needs. Populations still rely on these resources today. However, human intervention and activities affect ecosystems worldwide. Many of these activities are related to industrialization and development. For example, people who harvest timber cause soil erosion and loss of habitat. Overfishing is another human activity that can cause species to become threatened or extinct, and it can create an imbalance in the natural food web.

The agricultural industry is another example of human activity negatively affecting the environment. Agriculture removes natural vegetation, which can cause soil erosion. Soil erosion can cause rivers to become clogged with silt, and with the lack of shade and moisture in the soil, desertification can occur.

Humans also intervene with natural ecosystems by creating large dams. Dams impact the biological, chemical, and physical properties of river ecosystems. One impact of this human activity is the change upstream of a dam from a free-flowing river to a human-made reservoir. The resulting changes in temperature, chemical makeup, and dissolved oxygen levels are often not suitable for the plants and animals that rely on this river ecosystem. Large dams contribute to the extinction of aquatic species, the disappearance of birds in floodplains, and loss of lands, including forests, wetlands, and farmlands. Larger dams have also led to the erosion of deltas.
Scarcity of Clean Water  In the developing world, water pollution and scarcity of clean water are serious problems. Nearly 800 million people have no access to clean water. Eighty percent of all illnesses in developing nations can be traced to inadequate supplies of clean water.

In some parts of the world, nations share the water supplies in lakes and rivers. In southwest Asia, for example, Israel and Jordan share the Jordan River—an essential source of water for farming. Any nation that pollutes shared water or stops water from flowing into a neighboring country runs the risk of starting an international conflict. Many nations try to cooperate to make sure water supplies remain clean.

In the United States, California has complex water issues. The state’s large population and agricultural industry have put severe pressure on water resources. The problems worsened during a drought that lasted from 1987 to 1992. However, the state limited the negative effects of that drought by developing new ways to conserve and use water. Beginning in 2011, California entered a new period of drought. Snowmelt slowed and contributed less to reservoirs. Severe fires in drought-stricken areas have devastated California residents and wildlife. Maps, data collected from NASA and other agencies, as well as drought monitoring are tools that the state uses to try to lessen the impact of the drought, but the effects of drought have hurt the state’s economy. As people migrate to populated areas, pressure mounts to provide adequate water supplies to meet the needs of a growing population.

Another drought is occurring in the Sahel region of West Africa, where people struggle with desertification. Desertification is caused partly by drought and partly by human activity. The growing population in this region clears the land and cuts down more and more trees for firewood, which is used for fuel and cooking. It also allows livestock to overgraze the land. Without plants to anchor the soil, wind blows away rich soil, making the land useless.

Since water is vital to sustaining life, some people argue that access to clean water is a necessity that should be affordable to all. However, in places where clean water is limited, the availability and cost of clean water can make it difficult for everyone to have access to it. Conservation, or the act of preserving resources, is one way that people can protect clean water. For example, during periods of drought in the United States, local governments restrict the use of water by residents. In South Africa, efforts are being made to make irrigation techniques more efficient in order to save water. However, conservation is difficult to control and enforce.

Destruction of Rainforests  Another critical resource issue is the destruction of tropical rainforests in Brazil’s Amazon region and in areas of Africa, Asia, and Latin America. The rainforests help maintain water quality, recycle rainfall and oxygen into the atmosphere, and protect
the soil. The United Nations Food and Agriculture Organization (FAO) estimates that each decade about 500,000 square miles of forest are lost to deforestation. Deforestation results from the burning or cutting down of trees in order to dig mines or to clear land for farming or raising cattle. Loggers clear the land using a technique known as clear-cutting, where they uniformly cut down all the trees in one area. As a result, some species of animals and plants that rely on the forest ecosystem have become extinct or threatened. Experts estimate that between one-half and two-thirds of Earth’s plant, animal, and insect species live in rainforests. This loss of habitat could affect all people on the planet.

In recent years, international pressure has led nations like Brazil, which is still a developing country, to make efforts to slow the destruction of the rainforests. Success has been limited, however, by Brazil’s desire to develop economically and by its increasing population. The main concern of the

---

**DOCUMENT-BASED INVESTIGATION**

**Economic Policy and the Environment**

Lester R. Brown is president of the Earth Policy Institute, which researches how to attain an environmentally sustainable economy and assesses current economic programs around the world.

---

“Most decisions taken in economic policy are made by economic advisors. You can see this in the World Bank’s annual development reports where they see the environment as a sub-sector of the economy. However, if you look at it as a natural scientist or ecologist, you have to conclude that the economy is a subset of the earth’s ecosystem. . . .

Many of the problems that we face are the result of the incompatibility of the economy with the ecosystem. The relationship between the global economy, which has expanded sixfold over the last half century, and the earth’s ecosystem is a very stressed one. The manifestations of this stress are collapsing fisheries, falling water tables, shrinking forests, expanding deserts, rising carbon dioxide levels, rising temperatures, melting ice, dying coral reefs, and so forth. Not only is this a stressed relationship but a deteriorating one.”

—Lester R. Brown quoted from Eco-Economy: Building an Economy for the Earth
DEPLETION OF THE BRAZILIAN AMAZON RAINFOREST

Extent of Deforestation, 1970–2013

- Total area: 4.1 million square miles
- 18.5%

Sources: Mongabay.com; Brazilian National Institute of Space Research; United Nations Food and Agriculture Organization

Interpret Graphs

1. Clarify How many square miles of the Brazilian Amazon rainforest were deforested from 1970 to 2013?

Brazilian government is to improve the social and economic conditions of its poor population and the indigenous people who live in the rainforests of Brazil. Unlike the United States and other developed countries, Brazil does not have the financial resources or economic strength to put into place environmental policies regarding resource management. In order to diminish deforestation in the Amazon region, the government would have to use substantial financial resources. As one American diplomat explained, “Environmental concerns are a luxury of the rich, and this is not a rich country. Brazilians are not going to just preserve the Amazon. They are going to develop it. The question is, how.”

Many other developing nations face the same problem as Brazil. They need to achieve sustainable development, the process of creating economic growth while preserving the environment. The United Nations Economic and Social Council (ECOSOC) has been working with other organizations and countries on sustainable development. In September 2015 the ECOSOC hosted a UN Conference on Sustainable Development to share sustainable development initiatives. In some areas, sustainable development initiatives are seeing positive results. The UN estimates that over the past 25 years, the deforestation rate has slowed. It attributes this improvement to better management of forest resources.

Distribution of Natural Resources Resources are not distributed equally around the world, which gives some countries and regions economic advantages over others. Many different organizations such as the International Union for Conservation of Nature and the Hague Institute...
for Global Justice work to improve and narrow the inequitable distribution of resources. Such organizations have pointed out that conservation efforts to manage natural resources have unfairly affected indigenous peoples, who often practice and rely on subsistence agriculture.

Developed nations have other advantages that allow them to better access their natural resources. Many industrialized countries have the financial resources and the technology needed to develop their natural resources. Even though some developing countries have abundant resources, they may not have comparable technology or financial means.

As more resources become depleted, people often look to other areas where natural resources can be obtained. Sometimes this affects settlement patterns. For example, if a lake has been used for irrigation and its water is depleted, people may migrate to other areas where they can find water for irrigation, which can cause population shifts. Another example is if people clear a forested area for agriculture but experience high population growth in their village or town, they may need to migrate to new areas in search of more potential cropland. In addition, countries that have larger and increasing populations often use a higher percentage of natural resources than other countries and regions with smaller populations.

A Growing Appetite for Energy

Sustainable development depends on using energy sources wisely. Energy sources can be defined as renewable or nonrenewable. Renewable energy sources, such as wind, water, and solar power, can be replenished. Nonrenewable energy sources, such as oil and coal, cannot. Although nonrenewable sources are generally cheaper to use, supplies are limited. Also, their use can cause environmental damage.

As population growth increases in urban and suburban areas, demand for energy also rises. Larger populations often require the use of more energy for light, heat, and power. Urban and suburban areas are increasingly centers of population growth and economic activity, both of which fuel energy consumption. As more and more shopping malls and fast-food restaurants are constructed to meet the needs of growing suburban populations around the world, some argue that this will negatively impact the environment. Others assert that this development will strengthen economies and provide more opportunities for globalization.

Energy Use and Its Challenges Eighty percent of the earth’s energy supply now comes from nonrenewable sources. Developed countries consume most of this energy. North America, Europe, and China are the biggest consumers.

The petroleum industry has contributed greatly to industrialization, but it also contributes to the world’s climate change crisis. The extraction and use of petroleum and petroleum products releases harmful toxins into

Reading Check
Analyze Issues  What are the arguments for and against providing access to clean drinking water to everyone?
the environment. As much of the global community relies on petroleum to meet its energy needs, it must manage the effects on the environment and practice sustainable development. Other nonrenewable energy sources also have environmental effects. Like petroleum, the burning of coal also contributes to greenhouse gases. Cutting down trees for fuel leads to soil erosion and the expansion of deserts in some areas. Nuclear power plants produce radioactive wastes that can remain hazardous for many years.

**The Gulf Oil Spill**  Oil spills are another example of energy-related pollution. Every year, several serious oil spills take place around the world. They foul water and shorelines and kill sea life. Although oil companies take precautions to prevent spills, spills appear to be an inevitable result of oil use.

The largest oil spill in U.S. history occurred in April 2010 when a drilling rig owned by British Petroleum (BP) exploded in the Gulf of Mexico. The accident spilled millions of gallons of oil along the Gulf coast,

---

**Now and Then**

**Alternative Fuel Cars**

Automobiles, most of which run on gasoline, use a great deal of the world’s nonrenewable energy, but perhaps not for long. Automakers have begun creating cars fueled by alternative power, such as hydrogen—one of the most abundant natural elements on Earth.

The trend toward environmentally safer vehicles is growing. California, for example, recently required the production of millions of low-emission vehicles—which use a combination of gas and electric power—over the next two decades.

However, some scientists are questioning the environmental hazards of electric cars. Electric cars do not emit hazardous gases as do conventional cars, but the manufacture of electric cars impacts global warming. The use of raw materials and the energy needed to build the lithium ion batteries also affect the environment. The power used to charge the battery contributes to global warming if it comes from a nonrenewable energy source such as coal. Energy is produced differently in countries where electric cars are made, and electricity produced from coal is the most polluting way to generate power. Even though no zero-emission vehicle currently exists, many scientists are working toward building the most environmentally friendly alternative.
seriously damaging marine habitats and fishing and tourism industries. BP managed to contain the spill after several months and promised to pay all cleanup costs.

Solutions for the 21st Century Government action and stronger regulations may provide solutions to the world’s environmental problems in the 21st century. In the long run, however, improved technology might stand as the best hope for a cleaner environment. More inexpensive ways to use renewable energy sources, such as wind and solar power, may reduce air pollution and global warming. In any event, the nations of the world will need to agree on how to achieve sustainable development in this new millennium.

Some governments have taken action against pollution and global warming by passing laws to protect Earth’s air and water. Still, many nations do not have strict pollution controls in place, or even if they have enacted laws they continue to be among the world’s largest polluters of the environment. The United States, for example, fits into this category. In the United States and elsewhere, politicians often have difficulty agreeing on a course of action because of differing ideologies. Some nations fear that placing strict limits on the emission of carbon dioxide and other greenhouse gases that contribute to global warming might harm economic development. Preventing and reducing pollution while protecting businesses and economies is a major political and international challenge for governments around the globe.

Lesson 5 Assessment

1. Organize Information Use the web diagram below to list environmental problems. Which set of problems do you consider to be the most serious?

2. Key Terms and People For each key term or person in the lesson, write a sentence explaining its significance.

3. Analyze Issues How are population growth and urbanization connected to global warming?

4. Form Opinions Should developing nations have to meet the same environmental standards as developed nations? Why or why not?

5. Compare What are the environmental arguments for and against globalization?

6. Predict What impact will increased globalization in the 20th and 21st centuries have?
Cultures Blend in a Global Age

The Big 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.

Key Terms and People
popular culture
consumerism

Setting the Stage
Since the beginnings of civilization, people 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, because of advances in technology, it occurs at a much more rapid pace and over much greater distances. Twenty-first-century technologies allow people from all over the world to have increasing interaction with one another. Such contacts promote widespread sharing of cultures.

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

Mass Media
In the United States, 99 percent of American households have at least one television set. In Western Europe, too, most households have one or more televisions. Access to television is less widespread in the emerging nations, but it is growing. The speed at which television can present information helps create an up-to-the-minute shared experience of global events. Wars, natural disasters, and political drama in faraway places have become a part of everyday life.

However, no mass media does more to promote a sense of a globally shared experience than does the Internet. In a matter of minutes, a political demonstration in South America can be captured on a camera phone and uploaded...
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.

“The King”

“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 Presley, called the “King of Rock ‘n’ Roll” by many.

“World Pop”

Youssou N’Dour, a singer from the West African country of Senegal, blends traditional African styles with American rock to create a new form that has been called “world-pop fusion.”

U2

U2, led by singer Bono, is one of the world’s most popular and influential rock bands. Over a career spanning nearly 40 years, this Irish band has kept its music vibrant and fresh by absorbing and reworking all manner of musical styles. The band has drawn on the blues, gospel, 1950s rock ‘n’ roll, 1960s protest songs, and hip-hop to create a very distinctive kind of music.

Critical Thinking

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

2. Analyze Events  Write a brief analysis of a major musical development that occurred in the past century.
to an online video community for all the world to see. Blogs, social networking sites, and real-time information networks also transmit the most current news, information, entertainment, and opinions worldwide in the blink of an eye.

Television, the Internet, and other mass media, including radio and movies, are among the world’s most popular forms of entertainment. But they also show how people in other parts of the world live and what they value. 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. For example, in Bhutan, a tiny country high in the Himalayas, ESPN, HBO, Cartoon Network, and CNN are among the most-watched channels. CNN is a global channel, since it reaches more than 250 million households in more than 200 countries.

Television broadcasts of sporting events provide a front-row seat for sports fans all over the globe. Basketball and soccer are among the most popular televised sports. National Basketball Association (NBA) games are televised in more than 200 countries. In China, for example, broadcasts of NBA games of the week regularly attract an audience in the millions. One of the most-watched international sporting events is the soccer World Cup. Hundreds of millions of viewers worldwide watched the 2014 World Cup final.

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. And the performers who create this music often gain international fame.

**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. Over the years the game gained popularity there. Today, some Major League teams have Japanese players and several American players play in the Japanese league.

Baseball spread to Mexico, Cuba, Puerto Rico, Panama, and the Dominican Republic in the late 19th and early 20th centuries. Today, baseball is a popular game in these and other Latin American countries. About 25 percent of the players in Major League Baseball come from Latin America.
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 actually 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 suits are standard uniforms among many people. American-style hamburgers and soft drinks can be purchased in many countries of the world. Mickey Mouse and other Disney characters are almost universally recognized.

Some people believe that these changes are largely negative. They argue that mass media and advertising impact group behavior by encouraging the growth of consumerism, or the preoccupation with the buying of consumer goods. For example, as individuals in developing countries gain more wealth, many begin to spend their new money on consumer goods from clothing to technological devices to automobiles. This market for consumer goods, some opponents say, is shaped by the media and advertising, rather than by actual needs. Thus, they suggest that globalization is beginning to create a common world culture and is encouraging traditional cultures to lose some of their uniqueness.

Non-Western Influences 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. And cultural blending of Western and non-Western elements opens communications channels for the further exchange of ideas throughout the globe. This cross-fertilization
Global Patterns

Bollywood

Bollywood is the largest component of the India’s Hindi language film industry. Bollywood films are influenced by ancient Indian epics, ancient Sanskrit dramas, traditional folk theatre of India, Parsi theatre, and Hollywood. In the 2000s, Bollywood played a key role in reviving the American musical film genre. The musical film Moulin Rouge! was inspired by Bollywood musicals as well as many other musical films.

As a result of globalization, Bollywood films are popular not only with Indians, but also with fans around the world. Generations of non-Indian fans have grown up with Bollywood and have witnessed the cross-cultural appeal of Indian movies. Bollywood has expanded its popularity with Western audiences and music and movie producers. Bollywood actors like Amitabh Bachchan and Irrfan Khan, and actresses like Aishwarya Rai and Priyanka Chopra have also achieved success in America.

between cultures can be seen in the Brazilian martial art capoeira. Capoeira combines elements of dance, acrobatics, and music. It originated in West Africa, but West Africans brought it to Brazil during the slave trade in the 16th century. Currently, capoeira is practiced around the world.

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.

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 Nobel Prize winners in literature over the last 20 years reflects a broad variety of nationalities, including Turkish, Egyptian, Mexican, South African, West Indian, Japanese, Polish, Chinese, and Hungarian.

Future Challenges and Hopes

Many people view with alarm the development of a global popular culture heavily influenced by Western, and particularly American, ways of life. They fear that this will result in the loss of their unique identity as a people or nation. As a result, many countries have adopted policies that reserve television broadcast time for national programming. For example, France requires that 40 percent of broadcast time be set aside for French-produced programs. South Korea also places significant limits on the amount of foreign programming that can be broadcast.
Some countries take a different approach to protecting cultural diversity in the media. Television programmers take American shows and rework them according to their own culture and traditions. As an Indian media researcher noted, “We really want to see things our own way.” Other countries take more drastic steps to protect their cultural identity. They strictly censor the mass media to keep unwanted ideas from entering their nation.

Sometimes people respond to perceived threats to their culture 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, the Maori in New 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 New Zealand government recognized the importance of this trend by making the Maori language one of the country’s official languages.

Kenzaburo Oe of Japan was awarded the Nobel literature prize in 1994. Oe studied Western literature in college, and he has used Western literary styles to tell stories about his personal life and the myths and history of his country.

South African writer Nadine Gordimer won the Nobel Prize for Literature in 1991. Many of her novels and stories published prior to 1991 focused on the evils of the apartheid system. As a result, much of her work was censored or banned by the South African government.

Kenzaburo Oe of Japan was awarded the Nobel literature prize in 1994. Oe studied Western literature in college, and he has used Western literary styles to tell stories about his personal life and the myths and history of his country.
Despite the fear and 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 connectedness with people in other areas of the world. For example, the response to the events of September 11, 2001, was international in scope. People from around the world expressed their concern and support for the United States. It was as if this act of terrorism had struck their own countries.

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 together in harmony and with the physical planet.

**Global Interdependence**

Lesson 6 Assessment

1. **Organize Information**  Create a web listing aspects of international popular culture. Explain which of the aspects has the greatest effect on your life.

2. **Key Terms and People**  For each key term or person in the lesson, write a sentence explaining its significance.

3. **Synthesize**  Why are the mass media such an effective means of transmitting culture?

4. **Analyze Effects**  Do you think that limiting the amount of foreign television programming is an effective way to protect cultural diversity? Why or why not?

5. **Form Opinions**  “Ethnocentrism—the belief in the superiority of one’s own ethnic group—has taken hold in the world.” Do you agree or disagree? Explain.

Reading Check

Analyze Effects

How do people react against greater global interdependence?
Module 18 Assessment

Key Terms and People

For each term or name below, write a sentence explaining its connection to global interdependence from 1960 to the present.

1. Internet
2. genetic engineering
3. global economy
4. free trade
5. political dissent
6. refugee
7. terrorism
8. USA PATRIOT Act
9. popular culture
10. consumerism

Main Ideas

Use your notes and the information in the module to answer the following questions.

Science and Technology Transform Life

1. In what ways have science and technology changed the lives of people today?
2. What was the goal of the green revolution?

Global Economic Development

3. How are a developed nation and an emerging nation different?
4. What is the function of the World Trade Organization?

Global Security Issues

5. What methods has the world community used to resolve conflicts since World War II?
6. What efforts have been made to guarantee basic human rights?

Terrorism

7. What methods do terrorists employ?
8. How did the United States respond to the terrorist attacks of September 11, 2001?

Environmental Challenges

9. What natural resources does the world community fear are becoming scarce?
10. How do rain forests benefit the environment?

Cultures Blend in a Global Age

11. Which technologies have had the most powerful impact on cultural sharing?
12. Why have Western influences had a major impact all over the world?
Critical Thinking

1. **Summarize** How is the UN working to address the unresolved problems of the world?

2. **Analyze Issues** How does globalization affect relationships and economic development among developed and developing countries?

3. **Identify Solutions** Imagine you are the culture minister of a small country. What steps would you take to ensure that your country's cultural identity is protected? Explain why you think these steps would be effective.

4. **Recognize Effects** How are individuals affected by the global economy?

Engage with History

Imagine that you are a U.S. economics analyst preparing for a group discussion on the United States' economic system and its impact on society. You may use print and electronic resources to help you gather information. Address the following topics in your discussion:

- GDP
- supply and demand
- competition
- consumer price index (CPI)
- income
- elasticity
- the role of government in the economy

Focus on Writing

Work in groups of four to create a report describing how private enterprises affect politics, the economy, and social life in countries within one of these regions: Africa, Latin America, Europe, or the United States. Each group member should research a different region. Consider the following questions as you research:

- What is a private enterprise?
- How do private enterprises interact with the government?
- Which laws affect private companies?
- Do private enterprises improve economies? How?
- In what ways do private enterprises change the lives of people who work for them or of people in the community?

Multimedia Activity

Work in groups of three to create a multimedia presentation showing how urbanization and industrialization have changed the roles of social institutions such as family, religion, education, and government in many societies. Each group should choose a region, and each person should choose one of the countries listed for that region.

- Africa: Zimbabwe, Kenya, Nigeria, Sierra Leone
- Latin America: Brazil, Argentina, Chile, Mexico
- Asia: China, India, Indonesia, South Korea

Each person should then select one social institution to research for their chosen country. Use the Internet, periodicals, and other sources to research your presentation.

Your presentation should feature historical, literary, musical, and visual materials that relate to your topic.