Between 1922 and 1991, Russia and most of the Republics were part of the Union of Soviet Socialist Republics (USSR), also known as the Soviet Union.
**RESEARCH WEB LINKS**

**PLACE** The Caucasus Mountains stretch between the Black and Caspian seas. A great variety of peoples have settled in the region surrounding the mountains.

**REGION** Russia and the Republics cross over 11 time zones and cover nearly one-sixth of the earth’s land surface.

**LOCATION** Most of the region is hundreds of miles from the open sea.

**HUMAN-ENVIRONMENT INTERACTION**
Freezing temperatures can continue so long that people use frozen rivers as roadways.

For more information on Russia and the Republics . . .

hmhsocialstudies.com

**GeoData**

**MOVEMENT** Invaders from Arabia brought Islam to the southern areas of the region by the 8th century. Beautiful mosques adorn many of the region’s cities.
Today, Russia and the Republics face the issues previewed here. As you read Chapters 15 and 16, you will learn helpful background information. You will study the issues themselves in Chapter 17.

In a small group, answer the questions below. Then participate in a class discussion of your answers.

**Exploring the Issues**

1. **CONFLICT** Search a newspaper for articles about conflicts in Russia and the Republics today. What do these conflicts have in common? How are they different?

2. **ECONOMIC CHANGE**
   Think about the different economic systems you learned about in Chapter 4. How might changing from a command economy to a market economy be difficult?

3. **NUCLEAR LEGACY**
   What impact could Soviet nuclear programs have on the region’s economy?

For more on these issues in Russia and the Republics . . .

**How do new nations establish law and order?**

After the collapse of the Soviet Union in 1991, groups in different parts of the region took up arms to fight for independence. This photo shows a woman and child from a region of Russia called Chechnya. Russia invaded Chechnya twice in the 1990s to end an independence movement in the region.
How have Soviet decisions affected new leaders?

In 1965, Soviet officials exploded a nuclear bomb to create this lake in Kazakhstan. The blast exposed nearby residents to harmful radiation. The region’s new leaders inherited many problems caused by Soviet nuclear programs.

How does a nation change its economic system?

For more than 70 years, the Soviet government made all the important economic decisions in the region. This cartoon illustrates a major economic challenge faced by the region’s new leaders: to move their nations from a command economy to a market economy while maintaining economic stability.
Russia and the Republics span two continents. The part of the region that lies to the west of the Ural Mountains is part of Europe. The part of the region that lies to the east of the Urals is part of Asia.

Use the Unit Atlas to add to your knowledge of Russia and the Republics. As you study the maps and charts, notice geographic patterns and specific details about the region.

Jot down answers to the following questions in your notebook.

**Making Comparisons**

1. What ocean lies to the north of Russia and the Republics? How might this ocean affect the region’s climate?

2. How much deeper is Lake Baikal than the deepest lake in the United States?

3. Based on these maps and charts, which region do you think has the higher population density: Russia and the Republics or the United States? Why?

**Comparing Data**

<table>
<thead>
<tr>
<th>Lakes</th>
<th>World’s Deepest</th>
<th>U.S. Deepest</th>
<th>Caspian Sea</th>
<th>Lake Issyk–Kul</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Baikal</td>
<td>5,715 feet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crater Lake</td>
<td>1,932 feet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caspian Sea</td>
<td>3,363 feet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Issyk–Kul Asia</td>
<td>2,303 feet</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Comparing Data

**Landmass**

<table>
<thead>
<tr>
<th>Region</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia and the Republics</td>
<td>8,603,400 sq mi</td>
</tr>
<tr>
<td>Continental United States</td>
<td>3,165,630 sq mi</td>
</tr>
</tbody>
</table>

**Population**

<table>
<thead>
<tr>
<th>Region</th>
<th>Population (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia and the Republics</td>
<td>283,291,000</td>
</tr>
<tr>
<td>United States</td>
<td>307,212,000</td>
</tr>
</tbody>
</table>
In 1991, the political geography of Russia and the Republics changed dramatically. For decades, the region’s 15 republics had been part of the Soviet Union. Each of the republics became independent after 1991, when the Soviet Union collapsed.

Study the map of the former Soviet Union and the map of Russia and the Republics today. Then answer these questions in your notebook.

**Making Comparisons**

1. Where are most of the region’s smaller republics located?
2. What was the largest republic in the Soviet Union? What is the largest republic in the region today?
3. To which of the Soviet Socialist Republics did Kaliningrad belong?
These two pages contain a pie graph and three thematic maps. The pie graph shows the religions of Russia and the Republics. The maps show other important features of the region: its different climates, numerous ethnic groups, and population density. After studying these two pages, answer the questions below in your notebook.

**Making Comparisons**

1. Where is the population of Russia and the Republics most dense? Which climate do those areas have? How might climate affect population density?

2. How would you describe the ethnic and religious populations of Russia and the Republics? Which is the most widespread ethnic group in the region?
<table>
<thead>
<tr>
<th>Country/Flag</th>
<th>Country/Capital</th>
<th>Population</th>
<th>Life Expectancy (years)</th>
<th>Birthrate (per 1,000 pop.)</th>
<th>Infant Mortality (per 1,000 live births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>Yerevan</td>
<td>2,967,000</td>
<td>72.7</td>
<td>12.7</td>
<td>20.2</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>Baku</td>
<td>8,239,000</td>
<td>66.7</td>
<td>17.6</td>
<td>54.6</td>
</tr>
<tr>
<td>Belarus</td>
<td>Minsk</td>
<td>9,649,000</td>
<td>70.6</td>
<td>9.7</td>
<td>6.4</td>
</tr>
<tr>
<td>Estonia</td>
<td>Tallinn</td>
<td>1,299,000</td>
<td>72.8</td>
<td>10.4</td>
<td>7.3</td>
</tr>
<tr>
<td>Georgia</td>
<td>Tbilisi</td>
<td>4,816,000</td>
<td>76.7</td>
<td>10.7</td>
<td>16.2</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Astana</td>
<td>15,399,000</td>
<td>67.9</td>
<td>16.6</td>
<td>25.7</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>Bishkek</td>
<td>5,432,000</td>
<td>69.4</td>
<td>23.4</td>
<td>31.3</td>
</tr>
<tr>
<td>Latvia</td>
<td>Riga</td>
<td>2,232,000</td>
<td>72.2</td>
<td>9.8</td>
<td>8.8</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Vilnius</td>
<td>3,555,000</td>
<td>74.9</td>
<td>9.1</td>
<td>6.5</td>
</tr>
<tr>
<td>Moldova</td>
<td>Chişinău</td>
<td>4,321,000</td>
<td>70.8</td>
<td>11.1</td>
<td>13.1</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>Moscow</td>
<td>140,041,000</td>
<td>66.0</td>
<td>11.1</td>
<td>10.6</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Dushanbe</td>
<td>7,349,000</td>
<td>65.3</td>
<td>26.9</td>
<td>41.0</td>
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<td>Turkmenistan</td>
<td>Ashgabat</td>
<td>4,885,000</td>
<td>67.9</td>
<td>19.7</td>
<td>45.4</td>
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<td>Ukraine</td>
<td>Kiev</td>
<td>45,701,000</td>
<td>68.3</td>
<td>9.6</td>
<td>9.0</td>
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<tr>
<td>Uzbekistan</td>
<td>Tashkent</td>
<td>27,606,000</td>
<td>71.9</td>
<td>17.6</td>
<td>23.4</td>
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<tr>
<td>United States</td>
<td>Washington, D.C.</td>
<td>307,212,000</td>
<td>78.1</td>
<td>13.8</td>
<td>6.2</td>
</tr>
</tbody>
</table>

**Sources:**
*The World Almanac and Book of Facts*, 2010
World Health Organization (WHO), 2007

**Notes:**

- GDP (purchasing power parity) is defined as the sum value of all goods and services produced in the country valued at prices prevailing in the United States.
- Includes land and water, when figures are available.

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Study the charts on the countries of Russia and the Republics. In your notebook, answer these questions.

**Making Comparisons**

1. Which five republics have the highest infant mortality rates? Do you notice any pattern?

2. Examine the literacy rates for the region. What do the figures tell you about the value placed on education in the region?
<table>
<thead>
<tr>
<th>Doctors (per 100,000 pop.) (2000–2004)</th>
<th>GDP(^a) (billions US$)</th>
<th>Import/Export (billions US$)</th>
<th>Literacy Rate (percentage)</th>
<th>Televisions (per 1,000 pop.)</th>
<th>Passenger Cars (per 1,000 pop.)</th>
<th>Total Area(^b) (square miles)</th>
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<tbody>
<tr>
<td>359</td>
<td>16.2</td>
<td>2.55/0.72</td>
<td>99</td>
<td>241</td>
<td>N/A</td>
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<tr>
<td>355</td>
<td>85.1</td>
<td>5.45/13.16</td>
<td>99</td>
<td>257</td>
<td>58</td>
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<td>455</td>
<td>111.9</td>
<td>22.4/18.04</td>
<td>99</td>
<td>331</td>
<td>187</td>
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<tr>
<td>448</td>
<td>24.5</td>
<td>9.32/9.23</td>
<td>99</td>
<td>567</td>
<td>380</td>
<td>17,462</td>
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<tr>
<td>409</td>
<td>20.8</td>
<td>4.48/1.77</td>
<td>100</td>
<td>516</td>
<td>55</td>
<td>26,911</td>
</tr>
<tr>
<td>354</td>
<td>175.1</td>
<td>25.15/4.164</td>
<td>99</td>
<td>240</td>
<td>91</td>
<td>1,049,155</td>
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<td>251</td>
<td>11.7</td>
<td>2.38/1.33</td>
<td>99</td>
<td>49</td>
<td>37</td>
<td>76,641</td>
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<tr>
<td>301</td>
<td>32.4</td>
<td>8.85/6.72</td>
<td>99</td>
<td>757</td>
<td>332</td>
<td>24,938</td>
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<tr>
<td>397</td>
<td>53.4</td>
<td>15.63/14.68</td>
<td>99</td>
<td>422</td>
<td>422</td>
<td>25,174</td>
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<tr>
<td>264</td>
<td>10.2</td>
<td>3.14/1.24</td>
<td>99</td>
<td>297</td>
<td>68</td>
<td>13,067</td>
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<tr>
<td>425</td>
<td>2,117</td>
<td>196.8/295.6</td>
<td>99</td>
<td>421</td>
<td>182</td>
<td>6,592,772</td>
</tr>
<tr>
<td>203</td>
<td>13.8</td>
<td>2.91/1</td>
<td>99</td>
<td>328</td>
<td>16</td>
<td>55,251</td>
</tr>
<tr>
<td>418</td>
<td>33.6</td>
<td>4.44/8.29</td>
<td>99</td>
<td>198</td>
<td>N/A</td>
<td>188,456</td>
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<tr>
<td>295</td>
<td>294.3</td>
<td>45.58/41.49</td>
<td>99</td>
<td>433</td>
<td>120</td>
<td>233,090</td>
</tr>
<tr>
<td>274</td>
<td>776</td>
<td>6.51/9.47</td>
<td>99</td>
<td>280</td>
<td>N/A</td>
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<tr>
<td>256</td>
<td>14,260.0</td>
<td>1,445/994.7</td>
<td>99</td>
<td>844</td>
<td>726</td>
<td>3,794,083</td>
</tr>
</tbody>
</table>

\(^a\)GDP for Russia and the Republics

\(^b\)Total area for Russia and the Republics
Russia’s Lake Baikal is the world’s deepest lake and holds over 20 percent of the earth’s fresh water. Russians treasure Lake Baikal as much as Americans treasure the Grand Canyon.

Essential Question
How do the extremes of the region’s physical geography affect the people of Russia and the Republics?

What You Will Learn
In this chapter you will compare and contrast the physical characteristics of Russia and the Republics.

SECTION 1
Landforms and Resources

SECTION 2
Climate and Vegetation

SECTION 3
Human–Environment Interaction

Use the graphic organizer online to record information from the chapter about the physical geography of Russia and the Republics.
A HUMAN PERSPECTIVE  Russia and the Republics occupy a tremendous expanse of territory—approximately three times the land area of the United States. The region sprawls across the continents of both Europe and Asia and crosses 11 time zones. When laborers in the western city of Kaliningrad are leaving their jobs after a day’s work, herders on the region’s Pacific coast are just beginning to awaken their animals for the next day’s grazing.

Northern Landforms

The geography of Russia and the Republics is the geography of nearly one-sixth of the earth’s land surface—over eight and a half million square miles. In spite of this huge size, the region’s landforms follow a simple overall pattern. You can divide the northern two-thirds of the region into four different areas. Moving from west to east, they are the Northern European Plain, the West Siberian Plain, the Central Siberian Plateau, and the Russian Far East. (See the physical map on pages 336–337 of the Unit Atlas.)

THE NORTHERN EUROPEAN PLAIN  The Northern European Plain is an extensive lowland area. It stretches for over 1,000 miles from the western border of Russia and the Republics to the Ural Mountains.

One of the world’s most fertile soils—chernozem, or black earth—is abundant on this plain. It sometimes occurs in layers three feet deep or more. Because of the high quality of its soil, many of the region’s agricultural areas are located on this plain.

More than 75 percent of the region’s 283 million people live on this plain. Three of the region’s largest cities are located there: Moscow, Russia’s capital; St. Petersburg; and Kiev, the capital of Ukraine.
WEST SIBERIAN PLAIN  The Ural Mountains separate the Northern European and West Siberian plains. Some geographers recognize the Urals as a dividing line between Europe and Asia. Others consider Europe and Asia to be a single continent, which they call Eurasia.

The West Siberian Plain lies between the Urals and the Yenisey River and between the shores of the Arctic Ocean and the foothills of the Altay Mountains. Because the plain tilts northward, its rivers flow toward the Arctic Ocean.

CENTRAL SIBERIAN PLATEAU AND RUSSIAN FAR EAST  Although extensive plains lie east of the Yenisey River, uplands and mountains are the dominant landforms. High plateaus—with average heights of 1,000 to 2,000 feet—make up the Central Siberian Plateau, which lies between the Yenisey and Lena rivers.

East of the Lena River lies the Russian Far East and its complex system of volcanic ranges. The Kamchatka Peninsula alone contains 120 volcanoes, 20 of which are still active. The Sakhalin and Kuril islands lie south of the peninsula. Russia seized the islands from Japan after World War II. Japan still claims ownership of the Kuril Islands.

Southern Landforms

The southern areas of Russia and the Republics feature towering mountains, barren uplands, and semiarid grasslands.

THE CAUCASUS AND OTHER MOUNTAINS  The Caucasus Mountains stretch across the land that separates the Black and Caspian seas. The mountains form the border between Russia and Transcaucasia—a region that consists of the republics of Armenia, Azerbaijan, and Georgia. Farther east, along the southern border of Russia and the Republics, rises a colossal wall of mountains, including the Tian Shan, shown below.

Some of these mountains are located along the southeastern border of Central Asia—a region that includes the republics of Kazakhstan,
Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. These ranges are so high that they prevent moist air from entering the region from the south, contributing to the arid climate of Central Asia.

THE TURAN PLAIN
An extensive lowland called the Turan Plain lies between the Caspian Sea and the mountains and uplands of Central Asia. Although two major rivers, the Syr Darya and Amu Darya, cross the plain, much of the lowland is very dry. Two large deserts stretch across the plain—the Kara Kum and the Kyzyl Kum.

Rivers and Lakes
Some of the world’s longest rivers flow through the vast plains of Russia and the Republics. The region also boasts some of the largest and deepest lakes in the world.

DRAINAGE BASINS AND RIVERS
The region’s rivers flow through a number of large drainage basins. You may recall from Chapter 2 that a drainage basin is an area drained by a major river and its tributaries. The main drainage basins in Russia and the Republics are the Arctic Ocean, Caspian Sea, Pacific Ocean, Baltic Sea, Black Sea, and Aral Sea basins.

The Arctic basin is the region’s largest. The basin’s three powerful rivers—the Ob, the Yenisey, and the Lena—drain an area of more than
three million square miles. These rivers deliver water to the Arctic Ocean at a combined rate of nearly 1,750,000 cubic feet per second. The Volga River, the longest river on the European continent, drains the Caspian Sea basin. The Volga begins near Moscow and flows southward for about 2,300 miles until it arrives at the Caspian. This important waterway carries about 60 percent of Russia’s river traffic.

**LAKES** In addition to some of the world’s longest rivers, Russia and the Republics also boast some of the largest lakes on our planet. Two of them, the Caspian and Aral seas, are located in Central Asia.

The Caspian Sea, which is actually a saltwater lake, stretches for nearly 750 miles from north to south, making it the largest inland sea in the world. The Aral Sea, which lies east of the Caspian, is also a saltwater lake. Since the 1960s, the Aral has lost about 87 percent of its water volume. This enormous loss is the result of extensive irrigation projects that have diverted water away from the rivers that feed the lake. In 2005, Kazakhstan built a dam to separate the smaller North Aral Sea from the South Aral, which is saltier and more polluted. The North Aral now receives enough water that it has largely recovered.

**LAKE BAIKAL** The crown jewel among the region’s lakes is Lake Baikal—the deepest lake in the world. At its deepest point, Baikal is more than a mile from the surface to the bottom. From north to south, the lake stretches for nearly 400 miles. It holds 20 percent of the world’s fresh water.

Though it has some pollution, most of Lake Baikal is remarkably clean. Thousands of species of plants and animals live in the lake. Twelve hundred species, including the world’s only freshwater seal, are unique to Lake Baikal.

## Regional Resources

Russia and the Republics have a great wealth of natural resources, but regional leaders have struggled to manage them. One challenge has been how to transport resources from harsh, distant regions. Another has been how to use the resources without damaging the environment.
**ABUNDANT RESOURCES** Russia and the Republics boast huge reserves of coal, deposits of iron ore, and other metals. The region is also a leading producer of oil and natural gas. Petroleum deposits around the Caspian Sea are among the world’s largest.

Russia’s vast forests hold one-fifth of the world’s timber resources. And the region’s powerful rivers make it one of the world’s largest producers of hydroelectric power.

**RESOURCE MANAGEMENT** Harsh climates, rugged terrain, and vast distances make it difficult for Russia and the Republics to remove resources from the ground and transport them to markets. Many of these resources are located in the frigid arctic and subarctic region of **Siberia**—the part of Russia that lies on the continent of Asia. Businesses find it difficult to attract workers to this severe region.

When businesses have been able to exploit regional resources successfully, they have often done so at great cost to the environment. Mining operations have caused significant damage, as has the production of oil and gas. Russia’s hydroelectric plants have also caused substantial damage. Dams and the plants’ discharge of unusually hot water—known as thermal pollution—have caused significant damage to surrounding plant and animal habitats.

Dramatic political and economic change in recent years will continue to make resource management difficult. Leaders will have to balance the need for economic growth with their responsibility to protect the environment.

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**GeoActivity**

**EXPLORING LOCAL GEOGRAPHY** Do more research on Lake Baikal and on the deepest lake in the state in which you live. Make a **poster** that visually compares the size and depth of the two lakes. Provide other information on your poster, including the volume of water in each of the lakes.

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**ECONOMIC CHANGE**

**Change in Norilsk**

In the photo below, a plane arrives in the remote nickel-mining town of Norilsk, which is not accessible by road. Until the 1990s, the government provided money for people willing to work in this remote region.

But the demand for Norilsk’s nickel has faded, and unemployment and poverty there have increased. Now the Russian government is paying to move people out of the area. Leaders must act quickly, though. In the brutal Siberian winter, poverty is deadly.
A HUMAN PERSPECTIVE Large areas of Russia and the Republics are extremely cold during much of the year. For example, the Siberian town of Oymyakon has reportedly had temperatures as low as −95°F. At such temperatures, the cold can crack steel and cause tires to explode. When you exhale, your breath freezes into crystals that fall to the ground and make a noise that Siberians call “the whispering of the stars.” Some of the region’s native peoples believe that, in the coldest weather, words themselves freeze, and that, when warmer weather arrives and thaws the crystals, the words come to life and begin to speak. “Suddenly the air fills with out-of-date gossip, unheard jokes, and cries of forgotten pain.”

A Climate of Extremes

As you can see on the climate map on page 340, Russia and the Republics have some very cold climates. But the region also features warmer climates, such as the subtropical areas of Transcaucasia, and the semiarid and desert zones of Central Asia.

MAJOR CLIMATE REGIONS Humid continental and subarctic climates dominate much of Russia and the Republics. These climates reflect the influence of the region’s high latitude and the impact of the wall of mountains in the southeast. The region’s enormous size also has a major effect on its climates. Much of the region is hundreds of miles from the moderating influence of the sea. The effect of this distance on climate is called continentality.

Distance from the sea affects the amount of precipitation the region gets, as well as its temperatures. Most of the region’s moisture comes from the Atlantic Ocean. But the air coming from the ocean loses its moisture as it travels farther and farther inland. Distance from the sea also results in extreme temperatures. In Siberia, average monthly temperatures rarely exceed 50°F and sometimes drop below −90°F.

The long stretches of cold weather in the region have a unique impact on daily life. Siberians, for example, use frozen rivers and lakes as roads for part of the year. Temperatures are so consistently low that the region is covered by a layer of permanently frozen subsoil called permafrost. This layer can reach depths of 1,500 feet.

Main Ideas
- Much of Russia and the Republics lies in subarctic and tundra climate zones.
- In the region’s southern areas, semiarid and desert climates feature warmer winters and hot summers.

Places & Terms
continentality

Connect to the Issues
conflict

Ethnic conflict has disrupted the flow of tourist dollars into some areas of the region.

MOVEMENT The crew driving this truck is using the frozen surface of Lake Baikal to transport cargo.
While humid continental and subarctic climates dominate the northern and eastern areas of the region, Russia and the Republics also have warmer climates. A wall of mountains in the southeastern areas of the region blocks moist air traveling northward from the Indian and Pacific oceans. The mountains contribute to the semiarid and desert climates of Central Asia.

In Transcaucasia, moist air from the Mediterranean Sea contributes to a subtropical climate zone. The region’s health resorts were a favorite destination of tourists until ethnic conflict made traveling there dangerous.

### Vegetation Regions

Russia and the Republics have four major vegetation regions. These regions run east to west in wide strips. Moving from north to south, they are the tundra, forest, temperate grassland, and desert.

**TUNDRA** The tundra region of Russia and the Republics falls mostly in the Arctic climate zone. Only specific types of vegetation—such as mosses, lichens, small herbs, and low shrubs—are able to survive in the tundra’s polar conditions.

**FOREST** South of the tundra lies the largest forest on earth—the taiga. The taiga contains primarily coniferous trees. Many fur-bearing animals,
such as sable, fox, and ermine, live in the taiga. Elk, bear, and wolves also
make their homes in the forest.

South of the taiga, deciduous trees begin to mix with coniferous
species. In lower latitudes, the deciduous trees become dominant.

STEPPE The steppe is the name of the temperate grassland that
extends from southern Ukraine through northern Kazakhstan to the
Altay Mountains. The highly fertile chernozem soil is found in the
steppe and helps to make the grassland a major source of grain for
Russia and the Republics.

DESSERT Deserts and semiarid lands occupy the wide plains in the west
and central areas of Central Asia. The two main deserts are the Kara
Kum, which covers most of the republic of Turkmenistan, and the Kyzyl
Kum, which is located in western Uzbekistan. Together, the two deserts
occupy an area of about 230,000 square miles. In the following section,
you will learn how efforts to irrigate these regions resulted in one of the
world’s greatest environmental catastrophes.

REGION Siberian
herders lead reindeer
through the taiga.
The breathing of the
reindeer is the cause
of much of the fog
floating above the herd.
What does this
image suggest about
the region’s climate?

Assessment

1 Places & Terms
   Explain the importance
   of each of the following terms and
   places.
   • continentality
   • taiga

2 Taking Notes
   REGION Review the notes you
   took for this section.
   Climate and
   Vegetation
   • How can climate affect
     transportation?
   • To what depths can permafrost
     extend in Russia and the
     Republics?

3 Main Ideas
   a. How does distance from
      the sea affect the region’s
      climate?
   b. In what way is the climate
      of Transcaucasia unique?
   c. What are the major
      vegetation regions in
      Russia and the Republics?

4 Geographic Thinking
   Determining Cause and
   Effect How are climate and
   vegetation related? Think
   about:
   • average temperatures
   • precipitation
   See Skillbuilder

GeoActivity

SEEING PATTERNS Choose a city in Russia and the Republics. Collect data on the average
monthly temperatures and precipitation in the city. Then create a climograph that illustrates
the results of your research.
A HUMAN PERSPECTIVE  Since the 1960s, irrigation policies in Central Asia have had a dramatic impact on the Aral Sea. A recent visitor to an old Aral fishing village described the change: “I stood on what had once been a seaside bluff . . . but I could see no water. The sea was twenty-five miles away.” The dried-up seabed had become a graveyard for abandoned ships. The powerful winds were covering local populations with polluted dust picked up from the seabed. Thousands of people have left the region, and those who remain risk illness, or even death. In this section, you will read more about the complex relationship between the environment and the people of Russia and the Republics.

The Shrinking Aral Sea

Between 1960 and the present, the Aral Sea lost about 80 percent of its water. Central Asian leaders now face one of the earth’s greatest environmental tragedies.

A DISAPPEARING LAKE  The Aral Sea receives most of its water from two rivers, the Amu Darya and the Syr Darya. Before the 1960s, these rivers delivered nearly 13 cubic miles of water to the Aral Sea every year. But in the 1950s, officials began to take large amounts of water from the rivers to irrigate Central Asia’s cotton fields. Large-scale irrigation projects, such as the 850-mile-long Kara Kum canal, took so much water from the rivers that the flow of water into the Aral slowed to a trickle. The sea began to evaporate.

EFFECTS OF AGRICULTURE  Agricultural practices in Central Asia caused other problems for the Aral Sea. Cotton growers used pesticides and fertilizers. These chemicals were being picked up by runoff—rainfall not absorbed by the soil that runs into streams and rivers. The runoff carried the chemicals into the rivers that feed the Aral, with devastating effects. Of the 24 native species of fish once found in the sea, none is left today.

Main Ideas

- The region’s harsh climate has been both an obstacle and an advantage to its inhabitants.
- Attempts to overcome the region’s geographic limits have sometimes had negative consequences.

Places & Terms

runoff

Trans-Siberian Railroad

Connect to the Issues

ECONOMIC CHANGE  New regional leaders must solve economic problems caused by the former Soviet Union.

Human-Environment Interaction

These two images, taken in 1976 and 1997, show what happened after agricultural officials began diverting water from the rivers that feed the Aral Sea.
Soon the damage spread beyond the lake. The retreating waters of the Aral exposed fertilizers and pesticides, as well as salt. Windstorms began to pick up these substances and dump them on nearby populations. This pollution has caused a sharp increase in diseases. The incidence of throat cancer and respiratory diseases has risen dramatically. Dysentery, typhoid, and hepatitis have also become more common. Child mortality rates in Central Asia are among the highest in the world.

**SAVING THE ARAL** Scientists estimate that even to keep the lake at its present levels, you would have to remove 9 of the 18 million acres that are now used for farming. This would create terrible hardship for the farmers who depend on those fields for their livelihood. But many argue that only such drastic measures can save the Aral.

**The Russian Winter**

The frigid landscapes of Siberia lie far from Central Asia. But the rugged inhabitants of Siberia are also familiar with hardship.

**COPING IN SIBERIA** More than 32 million people make their homes in Siberia. The climate presents unique challenges to its inhabitants, especially during winter.

Scientists have recorded the most variable temperatures on earth in Siberia. In the city of Verkhoyansk, temperatures have ranged from –90°F in the winter to 94°F in the summer—a span of 184 degrees. But most of the time it is cold. Temperatures drop so low that basic human activities become painful. A worker in the Siberian mining center at Norilsk explained how he and fellow workers turned up their collars and turned down the ear flaps of their fur caps so that only their eyes were visible. “Even then,” he reported, “your eyes would be so cold that you’d close one until the one you were looking with froze, and then swap over.”

The change of seasons brings little relief. Warmer weather melts ice and snow and leaves pools of water that become breeding grounds for mosquitoes and black flies. The problem becomes severe in the spring.
Swamps form when northward flowing rivers, swollen by spring rains, run into still-frozen water further north. Soon, enormous black clouds of insects are attacking Siberia’s residents.

The climate also affects construction in Siberia. Permafrost makes the ground in Siberia iron-hard. However, a heated building will thaw the permafrost. As the ground thaws, buildings sink, tilt, and eventually topple over. To prevent such problems, builders raise their structures a few feet off the ground on concrete pillars.

**War and “General Winter”** Russia’s harsh climate has caused difficulties for its inhabitants, but it has also, at times, come to their aid.

In the early 1800s, the armies of the French leader Napoleon Bonaparte were taking control of Europe. In the spring of 1812, Napoleon decided to extend his control over Russia. He gathered his army together in Poland and from there began the march on Moscow.

But as his troops advanced, so did the seasons. When Napoleon arrived in Moscow in September, the Russian winter was not far behind. Moreover, the citizens of Moscow had set fire to their city before fleeing, so there was no shelter for Napoleon’s troops.

Napoleon had no choice but to retreat during the bitter Russian winter. He left Moscow with 100,000 troops. But by the time his army arrived back in Poland, the cruel Russian winter had helped to kill more than 90,000 of his soldiers. Some historians believe that Russia’s “General Winter” succeeded in defeating Napoleon where the armies of Europe had failed.

**Crossing the “Wild East”**

At the end of the 19th century, Siberia was similar to the “Wild West” of the United States. Travel through the region was dangerous and slow. For these reasons, Russia’s emperor ordered work to start on a **Trans-Siberian Railroad** that would eventually link Moscow to the Pacific port of Vladivostok.

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**SKILLBUILDER: Interpreting Maps**

1. **LOCATION** As a train moves eastward after passing over the Ural Mountains, what is the first major stop?

2. **MOVEMENT** What railroad route would you take if you wanted to pass north of Lake Baikal?
AN ENORMOUS PROJECT The project was a massive undertaking. The distance to be covered was more than 5,700 miles, and the tracks had to cross seven time zones. Between 1891 and 1903, approximately 70,000 workers moved 77 million cubic feet of earth, cleared more than 100,000 acres of forest, and built bridges over several major rivers.

RESOURCE WEALTH IN SIBERIA Russian officials did not undertake this massive project simply to speed up travel. They also wanted to populate Siberia in order to profit from its many resources.

Ten years after the completion of the line in 1904, nearly five million settlers, mainly peasant farmers, had taken the railway from European Russia to settle in Siberia.

As migrants streamed into Siberia, resources, such as coal and iron ore, poured out. Siberia, one author wrote, began to yield riches that “she has under guard of eternal snow and ice, so long held in trust for future centuries.” In the years that followed, the railroad would aid the political and economic development of Russia and the Republics, which you will read about in the next chapter.
Understanding Time Zones

In 1884, international officials agreed to divide the map of the earth’s surface into 24 time zones, one for each hour of the day. Because the earth rotates 360° each day, each zone was to represent 15° longitude (360° ÷ 24 hours = 15°). Officials used the prime meridian (0°) as the starting point for the time zones. They named this base time Greenwich Mean Time (GMT). The International Date Line was set at 180° longitude. To the east of this line, the calendar date is one day earlier than to the west.

THE LANGUAGE OF MAPS A time zone map shows the time zones that are in use around the world today. Officials have adjusted the boundaries of many time zones to keep political units, such as countries, within a single time zone.

Map and Graph Skills Assessment

1. Drawing Conclusions
   How many time zones are there in the continental United States?

2. Making Comparisons
   What is the current time in the time zone in which you live? What is the current time in Greenwich, England?

3. Drawing Conclusions
   If it is 6:00 Sunday morning in New York, what are the day and time in Auckland, New Zealand?
Reviewing Places & Terms

A. Briefly explain the importance of each of the following.
1. chernozem
2. Ural Mountains
3. Eurasia
4. Transcaucasia
5. Central Asia
6. Siberia
7. continentality
8. taiga
9. runoff
10. Trans-Siberian Railroad

B. Answer the questions about vocabulary in complete sentences.
11. What is the name of the region crossed by the Trans-Siberian Railroad?
12. Which region is located south of the Caucasus Mountains?
13. What is chernozem and where is it found?
14. How can runoff affect the environment?
15. What are the five republics located in Central Asia?
16. Why are the Ural Mountains important for geographers?
17. What is the name of the non-European part of Russia?
18. Which vegetation region allows Russia to boast one-fifth of the world’s timber resources?
19. Why do Russia and the Republics receive limited precipitation?
20. Which landmass is named after the continents of Asia and Europe?

Main Ideas

Landforms and Resources (pp. 345–349)
1. What facts could you provide to give an idea of the enormous size of Russia and the Republics?
2. How does the tilt of the West Siberian Plain affect the region’s physical geography?
3. How is the region’s use of its resources affected by climate?

Climate and Vegetation (pp. 350–352)
4. What are major influences on the region’s climate?
5. How does latitude affect the type of vegetation found in Russia’s forests?
6. Where is the steppe located in Russia and the Republics?

Human-Environment Interaction (pp. 353–357)
7. What effect have irrigation projects had on the Aral Sea?
8. How has the shrinking of the Aral Sea affected public health in the surrounding region?
9. What factors contribute to the formation of swamps in Siberia, and how do the swamps affect people living in the region?
10. How long did it take to complete the main line of the Trans-Siberian Railroad?
Critical Thinking

1. Using Your Notes
Use your completed chart to answer these questions.

<table>
<thead>
<tr>
<th>Landforms</th>
<th>Resources</th>
</tr>
</thead>
</table>

a. Which region contains a large number of volcanoes?
b. Who was “General Winter”?

2. Geographic Themes
a. HUMAN-ENVIRONMENT INTERACTION How has Siberia’s climate affected transportation in the region?
b. MOVEMENT What impact did the Trans-Siberian Railway have on Russia’s population?

3. Identifying Themes
What factor might explain why Russia and the Republics receive relatively little precipitation and frequently experience extreme temperatures? Which of the five themes applies to this situation?

4. Determining Cause and Effect
What is a major factor contributing to the large subtropical climate zone in Transcaucasia?

5. Drawing Conclusions
Given what you have read about the dependency of Central Asian farmers on the water from the Amu Darya and Syr Darya rivers, how likely do you think it is that the Aral Sea will eventually recover?

GeoActivity
Do more research on mining pollution’s impact on public health in one area of the region. Use presentation software to share your results.

Mineral Resources and Pollution
Use the map to answer the following questions.

1. REGION This map shows how close mining sites are to polluted areas. Why might the two be related?
2. MOVEMENT How might locating a mining site near a river affect the spread of pollution?
3. PLACE Why might the areas around Moscow and St. Petersburg be polluted even though there seem to be few mining sites nearby?

Writing About Geography
Write a report of your findings. Include photos or illustrations that visually present information about life in the region. List the Web sites that you used in preparing your report.
Essential Question
How did the expansion of Russia affect the region’s people?

What You Will Learn
In this chapter you will learn about the history, culture, and economy of Russia and the Republics.

SECTION 1
Russia and the Western Republics

SECTION 2
Transcaucasia

SECTION 3
Central Asia

Use the graphic organizer online to take notes about the history, economics, culture, and modern life of each subregion of Russia and the Republics.
Russia and the Western Republics

A HUMAN PERSPECTIVE Early in the 1500s, the Russian leader Ivan the Great put an end to two centuries of foreign rule in his homeland. Russia then entered a period of explosive growth. From its center in Moscow, Russia expanded at a rate of about 55 square miles a day for the next four centuries. During the expansion, Russians made so much progress toward the east that they swallowed up a future U.S. state, Alaska. Russia had taken control of the territory by the late 18th century but did not sell it to the United States until 1867.

A History of Expansion

Russia’s growth had lasting effects on nearby lands and peoples. You can see these effects even today in the republics to its west: Belarus, Moldova, Ukraine, and the Baltic Republics of Estonia, Latvia, and Lithuania. But Russian expansion not only affected its neighbors. It also had an impact on the entire world’s political geography.

BIRTH OF AN EMPIRE The Russian state began in the region between the Baltic and Black seas. In the ninth century, Vikings from Scandinavia came to the region to take advantage of the river trade between the two seas. They established a settlement near what is now Kiev, a city near the Dnieper River. In time, the Vikings adopted the customs of the local Slavic population. Soon the settlement began to expand.

Expansion was halted in the 13th century with the arrival of invaders from Mongolia, called Tatars. The ferocity of those Mongol warriors is legendary. It is said that “like molten lava, they destroyed everything in their path.” The Tatars sacked Kiev between 1237 and 1240.

The Mongols controlled the region until the 1500s, when Ivan the Great, the powerful prince of Moscow, put an end to their rule. Russia continued once again to expand to the east. By the end of the 17th century, it had built an empire that extended to the Pacific Ocean. As the leaders of Russia added more territory to their empire, they also added more people. Many of these people belonged to different ethnic groups, spoke different languages, and practiced different religions.
RUSSIA LAGS BEHIND WESTERN EUROPE Russia’s territorial growth was rapid, but its progress in other ways was less impressive. Russian science and technology lagged behind that of its European rivals. Peter the Great, who was czar—or emperor—of Russia from 1682 to 1725, tried to change this. For example, he moved Russia’s capital from Moscow to a city on the Baltic Sea. The new capital, named St. Petersburg, provided direct access by sea to Western Europe. Russians called St. Petersburg their “window to the West.”

Peter the Great made impressive strides toward modernizing Russia, but the empire continued to trail behind the West. While the Industrial Revolution swept over many Western European countries in the first half of the 1800s, Russia did not even begin to industrialize until the end of the century. When industry did come to Russia, it resulted in harsh working conditions, low wages, and other hardships. These problems contributed to the people’s anger at the czars who ruled Russia.

Background
The word czar comes from the Latin for Caesar, the title of address for Roman emperors.
THE RISE AND FALL OF THE SOVIET UNION  During World War I (1914–1918), the Russian people’s anger exploded into revolt. In 1917, the Russian Communist Revolution occurred, ending the rule of the czars. The Russian Communist Party, led by V. I. Lenin, took control of the government. The Party also took charge of the region’s economy and gave Communist leaders control over all important economic decisions.

By 1922, the Communist Party had organized the different peoples absorbed during the centuries of Russia’s imperial expansion. This new nation was called the Union of Soviet Socialist Republics (USSR), or the Soviet Union for short. The leaders of the Soviet Union ruled the nation from its new capital in Moscow.

By the time World War II broke out in 1939, Joseph Stalin had taken over the leadership of the USSR. In 1941, he led the Soviet Union in the fight against Nazi Germany. However, as the war dragged on, relations between the Soviet Union and its allies—including the United States—began to worsen.

After the war, Stalin installed pro-Soviet governments in the Eastern European countries that his armies had liberated from Germany. U.S. leaders feared that a new stage of Russian expansion was beginning and that Stalin would spread communism all over the globe. By the late 1940s, tensions between the United States and the Soviet Union led to conflict. Diplomats called this conflict the Cold War because it never went into open warfare between the two nations.

The rivalry between the two superpowers continued into the mid-1980s. At that time, Soviet leader Mikhail Gorbachev started to give more economic and political freedom to the Soviet people. This began a process that led to the collapse of the Communist government and the Soviet Union in 1991—and the end of the Cold War.

After the fall of the Soviet Union, the region was divided into 15 independent republics. Of these, Russia, formally known as the Russian Federation, is the largest and most powerful. Today, Russia has a popularly elected president. Its legislature, the Federal Assembly, is divided into two chambers—the Federation Council and the State Duma.
Building a Command Economy

The Communists who overthrew czarist Russia in 1917 had strong ideas about the future. When they put their ideas into practice, they drastically transformed the economic geography of the region.

**AN ECONOMIC DREAM** The Communists had been inspired by the work of Karl Marx, a German philosopher who had examined the history of economic systems. Marx believed that the capitalist system was doomed because it concentrated wealth in the hands of a few and left everyone else in poverty. He predicted that a Communist system would replace capitalism. In a Communist society, he argued, citizens would own property together, and everyone would share the wealth.

**A HARSH REALITY** To move their society toward communism, Soviet leaders adopted a *command economy*—one in which the central government makes all important economic decisions. The government took control of the major sources of the state’s wealth, including land, mines, factories, banks, and transportation systems. Government planners decided what products factories would manufacture, what crops farms would grow, and even what prices merchants would charge for their goods.

Rapid industrialization became a major goal of Soviet planning. Even farming became an industry under Stalin. The Soviet government created enormous *collective farms* on which large teams of laborers were gathered to work together. People were moved to the farms by the thousands. By 1939, nearly nine out of ten farms were collectives. The Soviets had firmly established their power over the countryside.

Although industrial and agricultural production increased, the region’s people had to make great sacrifices for this rapid transformation. Millions of citizens starved to death in famines caused, in part, by the creation of collective farms. Those who survived soon realized that only a small number of individuals had benefited from the economic changes.

Many people tried to do something about this betrayal, but at great risk. Under Stalin’s rule, the police swiftly punished any form of protest. Some historians estimate that Stalin was responsible for the deaths of more than 14 million people.

Since the fall of the Soviet Union in 1991, leaders in Russia and the Republics have tried to reduce the state’s monopoly on economic power and return some control to private individuals and businesses. You will learn more about these changes in Chapter 17.

**Connect to the Issues**

**ECONOMIC CHANGE** Considering how long the Soviet command economy lasted, why might the change to a market economy be hard for the region’s citizens?
A Rich Culture

Russia and the Western Republics faced hard times under the czars and the communists. But these leaders could not destroy the cultural and spiritual traditions of the region’s people.

ETHNICITY AND RELIGION The region has a rich variety of ethnic groups because of the many peoples absorbed during the centuries of Russian expansion. Russia has the greatest ethnic diversity of the region’s republics. Russians make up the largest ethnic group there, with about 80 percent of the total. But nearly 70 other peoples live in Russia, including Finnish, Turkic, and Mongolian peoples. (See the map on page 341 of the Unit Atlas.)

Russia and the Western Republics are home to a great number of religions. Most Russians follow Orthodox Christianity, a religion Russia adopted in the 10th century. But the region is home to many other religions, including Buddhism and Islam. Judaism is also an important religion in the region. However, persecution has led large numbers of Jews to emigrate, especially to Israel and the United States.

ARTISTIC GENIUS Religion and art are closely related in Russia and the Western Republics. The art and architecture of Orthodox Christian churches, for example, are among the region’s earliest artistic achievements. Even today, citizens adore the beautiful onion-shaped domes and the icons—images of sacred Christians—that ornament the churches.

Regional culture went through great change after Peter the Great began to promote communication with Western Europe. As Russian artists combined artistic ideas from the West with their own experiences, a truly golden age of culture began.
In the 18th and 19th centuries, audiences around the world marveled at the work of writers such as Aleksandr Pushkin and Feodor Dostoyevsky. Their dramatic scenes and colorful psychological studies give an important portrait of Czarist Russia.

Great composers such as Peter Tchaikovsky and Igor Stravinsky also earned worldwide attention, as did the Russian ballet. Russian ballet companies, such as the Kirov and Bolshoi, are famous for producing magnificent dancers and creative choreographers, such as Mikhail Baryshnikov.

Art underwent another major change after the Communist Party began to outlaw artists who did not work in the official style. This style, called socialist realism, promoted Soviet ideals by optimistically showing citizens working to create a socialist society. In spite of the censorship, many artists took great risks to continue producing original work. Since the collapse of the Soviet Union, artistic expression has begun to gain strength.

**Tradition and Change in Russian Life**

Since the collapse of the Soviet Union, the region is more open to the influence of other countries—especially those in the West. At the same time, the region’s people continue to honor their traditions and work hard to preserve them.

**A MORE OPEN SOCIETY** The region’s people—especially in larger cities—have begun to enjoy more social and cultural opportunities. Large cities, such as Moscow and St. Petersburg, now resemble major cities in the West. City dwellers can read books, magazines, and newspapers from all over the world. They are able to keep up with new movies, music, and clothing trends. They can also experience a wide variety of foods and cuisines.

Although the variety of social and cultural opportunities has increased, native traditions have survived. For example, in spite of the many cuisines now available in Russian cities, many Russians still favor their traditional foods. Many of the foods, such as rye bread,
reflect the large crops of grain produced on the region’s steppes. Kasha is another popular food made from grain. It is cooked and eaten with butter. Even Russia’s national drink, vodka, is made from rye or wheat grains.

**DACHAS AND BANYAS** Only a quarter of Russia’s population lives in rural areas. Even so, many Russians cherish the nation’s countryside. Nearly 30 percent of the population own homes in the country, where they spend weekends and vacations. These homes, called *dachas*, are usually small, plain houses and often have gardens in which to grow vegetables.

One of the customs that Russians enjoy both in the countryside and the cities is visiting a *banya*. A *banya* is a bathhouse in which Russians perform a cleaning ritual that combines a dry sauna, steam bath, and often a plunge into ice-cold water.

Russians begin the ritual by warming up in a sauna heated to around 200°F. They then move into a steam room, where they use birch twigs to ease the muscles and perfume the body. After spending time in the steam room, many bathers plunge into an icy-cold pool—which might be a hole cut in the ice of a river or a lake. The ice bath is followed by hot tea, and the process is repeated. A visit to the *banya* can sometimes last for two to three hours.

The preservation of such customs and traditions by the Russian people has played an important role since the fall of the Soviet Union. It has helped to make the change from the isolated Soviet past to the more open society of the present less difficult.
Nuclear Explosion at Chernobyl

On April 28, 1986, engineer Cliff Robinson arrived at Sweden’s Forsmark nuclear power plant. He was startled when a radiation detector went off as he entered his office. When he checked the radiation levels on his clothing, he could not believe his eyes. “My first thought,” said Robinson, “was that a war had broken out and that somebody had blown up a nuclear bomb.” What Forsmark had detected was a radioactive cloud from the city of Chernobyl—site of a Soviet nuclear power plant nearly 800 miles away.

One of Chernobyl’s nuclear reactors had exploded, spewing radioactive dust across the region. It took two days for Soviet officials to admit that the explosion had occurred. The blast killed 31 people. No one is certain what toll accident-related diseases will take on the region’s population in the future.

The Spread of Radiation from Chernobyl

Workers test radiation levels from a helicopter. After the explosion, hundreds of thousands of workers helped in cleanup operations. Many were exposed to radiation and required emergency medical treatment.

The radioactive cloud from Chernobyl eventually spread over the entire Northern Hemisphere.
DAMAGE REPORT

- The Chernobyl plant is located about 80 miles north of Kiev, Ukraine's capital.
- The plant once employed nearly 9,200 people.
- On April 26, 1986, a poorly planned safety experiment led to the explosion at Chernobyl, which was made worse by a faulty reactor design.
- The reactor explosion was the world's worst civilian nuclear accident.
- The explosion contaminated around 100,000 square miles of land in Ukraine, Russia, and Belarus.
- Officials evacuated and resettled approximately 250,000 people from different towns around Chernobyl.
- Chernobyl continued to produce electricity until December 15, 2000, when officials finally shut down its last operating reactor.
- Costs related to the disaster have been estimated at over $300 billion.

PLANNING A PRESENTATION

With a partner, use the Internet to research Chernobyl today. Plan a multimedia presentation about the disaster's legacy.

- Design charts, graphs, and maps that show the disaster's impact on public health and the environment.
- Include personal stories from individuals whose lives have been affected by the explosion.

A close-up of the damage at Chernobyl's Unit 4 reactor (left). The color image below shows the concrete and steel "sarcophagus," or enclosure, later built around the contaminated reactor.

Serious health problems, such as thyroid cancer, have increased dramatically among children since the accident at Chernobyl.
A HUMAN PERSPECTIVE Throughout history, human beings have migrated through Transcaucasia, which today consists of the republics of Armenia, Azerbaijan, and Georgia. Recent discoveries have shown just how early such migrations began. In the summer of 1999, a team of scientists discovered two 1.7-million-year-old human skulls in the Transcaucasian republic of Georgia. They were the oldest human fossils found outside Africa. Reports suggest that the skulls could belong to the first people to have migrated from Africa.

A Gateway of Migration
People have long used Transcaucasia as a migration route, especially as a gateway between Europe and Asia. Trade routes near the Black Sea led to the thriving commercial regions of Mediterranean Europe. And trade routes leading to the Far East began on the shores of the Caspian Sea.

A VARIETY OF CULTURES
Because of the presence of so many trade routes, Transcaucasia has been affected by many different peoples and cultures. Today, more than 50 different peoples live in the region.

Migrants brought a great variety of languages to the region. Arab geographers called the region Jabal Al-Alsun, or the “Mountain of Language.” The Indo-European, Caucasian, and Altaic language families are the region’s most common.

MIGRATION BRINGS RELIGIONS
The people of Transcaucasia follow a number of different religions. However, most of the region’s people belong to either the Christian or the Islamic faith.
These faiths arrived in the region at an early date, because Transcaucasia is close to the areas in Southwest Asia where the two religions began. Armenia and Georgia, for example, are among the oldest Christian states in the world. Armenia’s King Tiridates III converted to Christianity in A.D. 300. A year later, he made his state the first in the world to adopt Christianity.

Not long after the 7th-century beginnings of Islam in Southwest Asia, Muslim invaders stormed into the southern Caucasus and converted many Transcaucasians to Islam. Today, the great majority of Azerbaijan’s people are Muslim.

**CONFLICT** The region’s diverse population has not always lived together in harmony. Tensions seldom erupted into open hostility under the rigid rule of the Soviets. However, after the collapse of the USSR in 1991, tensions among different groups have resulted in violence. Civil war broke out in Georgia, and Armenia fought a bitter war with Azerbaijan over a disputed territory called Nagorno-Karabakh.

The story of conflict is not new to Transcaucasia. Its history of conflict, as you will read below, can be explained, in part, by its location.

**A History of Outside Control**

Over the centuries, Transcaucasia has been a place where the borders of rival empires have come together. Imperial armies have repeatedly invaded the region to protect and extend those borders.

**CZARIST AND SOVIET RULE** In the 18th century, the troops of the Russian Empire joined the list of invaders. Russia’s southward expansion had begun as early as the 1500s, but it was only in the 1700s that the czar’s army began making progress south of the Caucasus Mountains.

The inhabitants of the region resisted the Russians, but the czar’s troops prevailed. By 1723, Peter the Great’s generals had taken control of Baku, the capital of Azerbaijan. In 1801, Russia annexed Georgia. In 1828, Russian armies took control of a large stretch of Armenian territory, including the plain of Yerevan. By the late 1870s, the czar’s troops had added Transcaucasia to the Russian Empire.

After the Russian Revolution in 1917, the Transcaucasian republics enjoyed a brief period of independence. By the early 1920s, however, the Red Army—the name of the Soviet military—had taken control of the region.
In the decades following the Soviet takeover, the people of Transcaucasia experienced the same painful economic and political changes as the rest of the Soviet Union. Many people lost their lives in famines triggered by the shift to collective farming or were killed because of their political beliefs. The republics of Transcaucasia regained their political independence in 1991 after the fall of the Soviet Union. Since then, the region’s leaders have struggled to rebuild their nations’ economies.

**Economic Potential**

Today, economic activity in the Transcaucasian republics ranges from the tourism and wine industries of subtropical Georgia to large-scale oil production in Azerbaijan.

**AGRICULTURE AND INDUSTRY** Although much of Transcaucasia’s terrain is mountainous, each of the republics has a significant agricultural output. Transcauscians have taken advantage of the region’s climate and the potential of the limited amount of land fit for farming.

The humid subtropical lowlands and foothills of the region are ideal for valuable crops such as tea and fruits. Grapes are one of the most important fruit crops. Georgians use the grapes cultivated along their Black Sea coast to produce their famous wines. Georgia’s mild climate also once fueled a profitable tourist industry.

There was little industry in Transcaucasia before the Soviet Union took control of the region. Soviet planners transformed Transcaucasia from a largely agricultural area into an industrial and urban region.

**BACKGROUND**

Stalin was especially harsh on Transcaucasia, even though he was from the Georgian town of Gori.
A number of industrial centers built by the Soviets continue to produce iron, steel, chemicals, and consumer goods for the region’s economy. But today, the oil industry is most important. The oil industry has an impact not only on oil-rich republics, such as Azerbaijan. It also affects Armenia and Georgia because oil producers want to build pipelines across their territory to bring the oil to market.

**LAND OF FLAMES** The significance of oil in the region has a long history. In fact, the name Azerbaijan means “land of flames.” The republic’s founders chose the name because of the fires that erupted seemingly by magic from both the rocks and the waters of the Caspian Sea. The fires were the result of underground oil and gas deposits.

**DIVIDING THE CASPIAN SEA** Since the breakup of the Soviet Union, Azerbaijan and the other four countries bordering the Caspian Sea have argued about whether the Caspian is an inland sea or a lake. The resolution of this argument will decide how resources are divided among the five countries.

If the Caspian is a sea, then each country has legal rights to the resources on its own part of the sea bed. If it is a lake, the law says that most of the resource wealth must be shared equally among each of the countries. Azerbaijan, with large reserves off its coast, says the Caspian is an inland sea. Russia, with few offshore reserves, insists that the Caspian is a lake.

The oil industry has given the region’s people hope for a better life. But oil revenue has benefited few Transcaucasians. Many continue to live in poverty.

**Modern Life in Transcaucasia**

Although times are tough for many, the region has much to offer, including a well-educated population and a reputation for hospitality.

**AN EDUCATED PEOPLE** The educational programs of the Soviet Union had a largely positive impact on its people. At the time of the Russian Revolution, only a small percentage of Transcaucasia’s population was literate. Communist leaders decided to train a new generation of skilled workers who would be prepared to undertake the tasks of industrial development and modernization. They succeeded, as literacy rates in Transcaucasia rose to nearly 99 percent, among the highest in the world. Today, high quality educational systems remain a priority for Transcaucasians.

**HOSPITALITY** In their quest for a modern system of education, Transcauscians have not forgotten the value of their traditions. Among the most important are the region’s mealtime celebrations.
The Georgian *supra*, or dinner party, is one of the best examples of such gatherings. The word *supra* means tablecloth but also refers to any occasion at which people gather to eat and drink.

A *supra* involves breathtaking quantities of food and drink. Meals begin at a table spread with a great number of cold dishes. Two or three hot courses and fruit and desserts follow those. Georgians add locally grown foods, such as grated walnuts, garlic, and an array of herbs and spices to their recipes. And they are able to serve meals with remarkable freshness, thanks to the region’s mild climate.

In addition to food and drink, a *supra* is accompanied by a great number of toasts, short speeches given before taking a drink. Georgians take the toasts very seriously because they show a respect for tradition, eloquence, and the value of bringing people together—a goal of great importance for the future of the region.
A HUMAN PERSPECTIVE Central Asia has inspired the dreams of many adventurers—and presented them with many dangers. In the 19th century, agents of the mighty British Empire found that even they were not safe there. In 1842, two British officers were captured in the Central Asian city of Bukhoro. For months, the city’s ruler kept the men in an underground bug-pit that swarmed with ticks, rats, and scaly vermin. In June of that year, he forced the two officers to dig their own graves and then beheaded them. In spite of the dangers, people have journeyed across Central Asia throughout history.

A Historical Crossroads

Today, Central Asia consists of five independent republics: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Travelers first began to make their way across the region in large numbers around 100 B.C. Many of them joined caravans making the 4,000-mile journey between China and the Mediterranean Sea.

THE SILK ROAD Traders called this route the Silk Road, after the costly silk they bought in China. In addition to silk, traders carried many other goods on their horses and camels. These included gold, silver, ivory, jade, wine, spices, amber, linen, porcelain, grapes, perfumes—even
Silk moths lay eggs that hatch into caterpillars called silkworms. This Kyrgyz woman is dipping cocoons in hot water to loosen the threads that she will then wind onto a reel. The worms feed on mulberry leaves and grow up to 70 times their original size. A single cocoon yields about 3,000–5,000 feet of thread. It takes about 3,000 cocoons to make just one pound of raw silk. When full grown, the worms produce a thread, which they use to spin a cocoon. Silk garments are popular items at a market.

Ostriches and acrobats. The Silk Road also became a route for spreading ideas, technology, and religion.

Traffic on the Silk Road slowed in the 14th century, giving way to less expensive sea routes. Even so, you can still experience the legacy of the Silk Road in the magnificent cities—such as Samarqand and Bukhoro—built to take advantage of the trade.

**THE GREAT GAME** Interest in Central Asia exploded again in the 19th century when Great Britain and the Russian Empire began to struggle for control of the region. Russian troops were moving southward, and British leaders wanted to stop the advance before the troops could threaten Britain’s possessions in India.

Both sides recruited daring young officers who made journeys through the region in disguise. These officers worked to create maps of Central Asia and to win local leaders to their side. Arthur Connoly—one of the British officers executed in Bukhoro—called this struggle between the two empires the **Great Game**.

By the end of the 19th century, the Russian Empire had won control of Central Asia. In the 1920s, the Soviet Union took control and governed the region until 1991. Since the collapse of the Soviet Union, the Central Asian republics have been independent.

**Background**

Bukhoro and Samarqand marked halfway points where travelers could meet and take advantage of the cities’ markets and services.
An Uncertain Economic Future

In Chapter 15, you read about the problems caused by Soviet irrigation programs in Central Asia. Other Soviet programs have also caused problems in the region.

NUCLEAR TESTING Until the late 1980s, the Soviet nuclear industry was the economic mainstay of Semey (renamed Semipalatinsk), a city in northeastern Kazakhstan. Between 1949 and 1989, scientists exploded 470 nuclear devices in “the Polygon,” a vast nuclear test site southwest of Semey.

The nuclear tests were so close to Semey that citizens could see the mushroom clouds of the above-ground explosions. Later, underground explosions cracked walls in towns 50 miles away. The testing caused widespread health problems. Winds spread nuclear fallout over a 180,000-square-mile area, exposing over a million people to dangerous levels of radiation. Exposure caused dramatic increases in the rates of leukemia, thyroid cancer, birth defects, and mental illness. Although testing at the site ended in 1989, the harmful effects of radiation will continue for years to come.

PETROLEUM AND PROSPERITY More hopeful is the potential for oil to bring wealth to Central Asia. Regional leaders see great promise in the oil and gas reserves of the Caspian Sea. In addition, engineers have recently discovered oil fields in Kazakhstan and Turkmenistan. These discoveries have triggered what many are calling the new “Great Game,” as nations all over the world begin to compete for profits from the region’s resources.

For Central Asia’s resources to benefit its people, however, leaders must first establish stable political and legal institutions. The cultural geography of Central Asia, though, will make this goal especially difficult to achieve.

Cultures Divided and Conquered

Central Asia has a large number of ethnic groups, as the chart to the right shows. Before the Russian Revolution, each group lived in a particular region where it could follow its own way of life.

SOVIETS FORM NATIONS When the Soviets took control of Central Asia, they used the differences among the ethnic groups to establish their own authority in the region.

Soviet planners carved the region into five new nations that corresponded to the largest ethnic groups—Kazakh, Kyrgyz, Tajik, Turkmen, and Uzbek. However, when they drew the borders of these nations, they deliberately left large numbers of one ethnic group as minorities in the neighboring republics of other ethnic groups.

That explains why Uzbeks form about 24 percent of the population of Tajikistan and why two of the major
Like children in the other former Soviet republics, the young people of Kyrgyzstan face a future filled with challenges. But most of the country’s young people are prepared to meet those challenges. Children in Kyrgyzstan go to school from the ages of 6 to 15, and the nation’s literacy rate stands at more than 97 percent.

The children in this photo are celebrating a birthday with their family. They are in a yurt set up for the occasion. Among the dishes on the table are mantı (sheep dumplings), ikat (a salad made of noodles and grated carrots), and kymys (a drink made from fermented horse milk).

If you lived in Kyrgyzstan, here is what you might experience:

• Since 75 percent of Kyrgyz practice Islam, you might be Muslim.
• You might become a farmer, since nearly half of Kyrgyzstan’s people earn their living that way.
• You might find it hard to keep in touch with friends since just 8 out of 100 people own phones.
• Watching TV would also be difficult. Only 2 out of 10 people own a TV.
• You would earn the right to vote and become eligible for military service at the age of 18.

The Survival of Tradition

Central Asia endured decades of upheaval under Russian and Soviet rule. Even so, many of the region’s traditions have survived.

NOMADIC HERITAGE The expansive grasslands of Central Asia are ideal for nomadic peoples. Nomads are people who have no permanent home. As seasons change, they move from place to place with their animals in search of food, water, and grazing land.

During the years of Soviet control, the number of nomads in Central Asia decreased dramatically as officials forced people onto collective farms. Even so, you can still find nomads in the region. In central Kyrgyzstan, for example, herders set up their tents near Lake Song-Köl during the summer months. They bring their animals there to graze on the lush pastures of the valley.
Because they are always on the move and must carry what they own, nomads have few possessions. They usually carry what is most useful. Even so, many of the possessions of Central Asia’s nomads are both useful and beautiful.

**Yurts** Among the most valuable of the nomads’ possessions are their tents—called yurts. Yurts are light and portable. They usually consist of several layers of felt stretched around a wooden frame, often made of willow. The outermost layer of felt is coated with the waterproof fat of sheep.

As the photo on page 378 shows, the inside of a yurt can be stunningly beautiful. To block the wind, nomads hang reed mats, intricately woven with the grasses of the steppe. For storage, they suspend woven bags on their tent walls. The inlaid wooden saddles of their horses and their carved daggers also ornament the yurt.

Perhaps the most beautiful and useful of all the yurt’s furnishings are the handwoven carpets. Their elaborate designs, colored with natural plant and beetle dyes, have made the carpets famous. Nomads use them for sleeping, or as floor coverings, wall linings, and insulation.

**Preserving Traditions** The nomadic lifestyle of the peoples of Central Asia is not nearly as widespread as it once was. But many people are working hard to preserve the tradition. One group has organized a network of shepherds’ families in Kyrgyzstan who are willing to take in guests. In this way, tourists can experience the daily life of the shepherds, who, in turn, receive a source of income for their families. Central Asians will benefit greatly from such imaginative and productive uses of their traditions.

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**Regional Assessment**

1. **Places & Terms**
   - Explain the importance of each of the following terms.
     - Silk Road
     - Great Game
     - nomad
     - yurt

2. **Taking Notes**
   - **Region** Review the notes you took for this section.
     - Central Asia
     - Russia and the Republics
   - What were some of the objects traded or transported over the Silk Road?
   - Why have some people suggested that a new Great Game is beginning in Central Asia?

3. **Main Ideas**
   - **a.** What was the cause of the Great Game?
   - **b.** What impact has Soviet nuclear testing had in Central Asia?
   - **c.** What are two important unifying forces in Central Asia?

4. **Geographic Thinking**
   - **Drawing Conclusions** How did the Soviet Union use the human geography of Central Asia to establish control of the region? **Think about:**
     - ethnic groups in the region
     - how Soviet planners drew borders

**GeoActivity**

**Seeing Patterns** Carry out more research on the lives of nomads in Central Asia. Focus on the period before the Soviet Union took control of the region. Then make up a **diary entry** that describes the daily activity of a typical nomadic family.
Comparing Cultures

Homes and Shelters
The geography of the region in which people live influences the nature of their homes and shelters. People who live in forested areas, for example, might build log cabins. People living in grasslands, on the other hand, may use thatch—plant stalks and leaves—to build their homes. On these two pages, you will learn how homes in different parts of the world reflect local geographic possibilities and limitations.

Arctic peoples in Canada and Greenland take advantage of their environment by using blocks of snow to build dome-shaped winter shelters called igloos. They sometimes add windows made with sheets of ice or seal intestines.

The portable yurts of Kyrgyz herders are suited to their nomadic lifestyle.

Spain
Kyrgyzstan
Indonesia
Greenland
The Korowai of Irian Jaya, Indonesia, live in tree houses that protect them from rival tribes, as well as the insects, scorpions, and snakes of the rain forest.

People in the Spanish town of Guadix have turned underground caves into homes to protect against the region’s extreme temperatures.

**Igloos**
- The blocks of snow in an igloo are about 2 feet high, 4 feet long, and 8 inches thick.
- An experienced builder can finish an igloo in one to two hours.

**Caves**
- About 50 percent of Guadix’s inhabitants live underground.
- Some of Guadix’s caves are quite luxurious, with marble floors, modern kitchens, fax machines, and Internet connections.

**Tree Houses**
- The Korowai people build tree houses as high as 150 feet above ground.
- Korowai tree houses have separate areas for men and women, each with its own entrance.

**Yurts**
- A nomadic family can set up their yurt in approximately a half-hour.
- Felt—the material used to cover yurts—is a fabric of compressed animal fibers, such as wool or fur.
Russia and the Western Republics

• The explosive growth of the Russian Empire and the following decades of Soviet rule have had a lasting impact on both the physical and human geography of the region.
• The dramatic economic changes that accompanied the rise and fall of the Soviet Union affected both Russia and the Republics and the world.

Transcaucasia

• Migrating peoples have created a mosaic of languages and ethnicities in Transcaucasia.
• Today, leaders in Transcaucasia are struggling to maintain harmony among the region’s different cultural groups and bring stability to the region’s three newly-independent republics.

Central Asia

• Central Asia’s fractured cultural geography still reflects the political goals of the old Soviet government.
• Powerful unifying forces, such as Islam, may help the region’s new republics as they continue to rebuild their social and economic systems.

Reviewing Places & Terms

A. Briefly explain the importance of each of the following.
1. Baltic Republics 6. command economy
2. czar 7. collective farm
4. USSR 9. Silk Road
5. Cold War 10. yurt

B. Answer the questions about vocabulary in complete sentences.
11. What were the emperors of the Russian Empire called?
12. What are the names of the three former Soviet republics located on the Baltic Sea?
13. What event ended the Russian Empire and the rule of the czars?
14. What is another name for the Soviet Union?
15. What was the name of the 20th-century conflict between the United States and the Soviet Union?
16. In what type of system are all major economic decisions made by the central government?
17. How did the Soviet Union turn agriculture into an industry?
18. What was the name of the Soviet military?
19. What caravan route contributed to the growth of magnificent trading cities such as Samarqand?
20. What is the name for the felt-covered dwellings of Central Asia’s nomads?

Main Ideas

Russia and the Western Republics (pp. 361–369)
1. What former Soviet republics are located west of Russia?
2. What event delayed the growth of Russia before the 16th century?
3. What were the origins of the Cold War?
4. What is the largest religious group in Russia and the Western Republics?

Transcaucasia (pp. 370–374)
5. Of what republics does Transcaucasia consist?
6. Transcaucasia’s location between which two seas made it an ideal migration route?
7. What factors may have contributed to instability in Transcaucasia?

Central Asia (pp. 375–381)
8. Of what republics does Central Asia consist?
9. Why did the Silk Road cross over Central Asia?
10. How did Islam become a major religion in Central Asia?
**Critical Thinking**

1. **Using Your Notes**
   Use your completed chart to answer these questions.

   a. What percentage of the Russian population lives in rural areas?
   b. What are the main religions in Transcaucasia?

2. **Geographic Themes**
   a. **PLACE** Why did Azerbaijan’s founders call it the “land of flames”?
   b. **LOCATION** Where was the Soviet nuclear test site called “the Polygon” located?

3. **Identifying Themes**
   Which country in Russia and the Western Republics has the greatest ethnic diversity, and what is its largest ethnic group? Which of the five themes applies to this situation?

4. **Making Comparisons**
   How did the rise of the Soviet Union affect Transcaucasia and Central Asia?

5. **Making Generalizations**
   How can the type of government that a country has affect the kind of work the country’s artists create?

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**Geographic Skills: Interpreting Maps**

**Central Moscow**

Use the map to answer the following questions.

1. **LOCATION** On what river does Russia’s capital lie?
2. **MOVEMENT** Which of the ring roads would you take to visit Gorky Park?
3. **MOVEMENT** In which direction would you walk to get from Lenin’s tomb to the State Department Store?

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**GeoActivity**

Choose one of the buildings shown on this map, and carry out further research on that building. Create a poster that includes a sketch of the site’s floor plan and a paragraph about the history of the building.

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**MULTIMEDIA ACTIVITY**

Use the links at hmhsocialstudies.com to do research on two of the former Soviet republics to the west of Russia. Focus on the characteristics of the republics’ geography and people.

**Creating Charts and Graphs**

Use your research to create charts and graphs that compare the two republics that you have chosen. List the Web sites that you used in preparing your report.
This woman and child are from the Russian Republic of Chechnya. Russia invaded Chechnya twice in the 1990s to prevent the republic from becoming independent.

What You Will Learn
In this chapter you will analyze major challenges that face Russia and the Republics.

SECTION 1
Regional Conflict

SECTION 2
The Struggle for Economic Reform

CASE STUDY
The Soviet Union’s Nuclear Legacy

Essential Question
How has the fall of the Soviet Union affected the region?
Regional Conflict

How do new nations establish law and order?

A HUMAN PERSPECTIVE The powerful central government of the Soviet Union once maintained tight control over Russia and the Republics. But when the Soviet Union collapsed in 1991, central authority weakened. Crime, conflict, and other signs of instability increased. As one former Soviet citizen put it, “We’re floating in a zone of half-lawlessness, half-law. . . . We destroyed the old system but replaced it with nothing. There is a vacuum.”

A number of ethnic and religious groups have taken advantage of this vacuum to seek control over their own affairs. In several regions, their demands have resulted in conflict. Leaders in these regions have tried to gain control over the conflicts and bring them to an end. The test for many leaders has been how to preserve law and order without returning to the undemocratic rule of the Soviet era.

A Troubled Caucasus

Among the different subregions of the former Soviet Union, the Caucasus has experienced some of the most violent conflicts. The Caucasus, or Caucasia, is a region that straddles the Caucasus Mountains, which stretch between the Black and Caspian seas. To the north of the mountains lie republics that are part of Russia—including Chechnya, Dagestan, Ingushetia, and North Ossetia. To the south are the republics of Transcaucasia, which were once part of the Soviet Union but are now independent countries: Armenia, Azerbaijan, and Georgia.

The Caucasus is a land of great complexity. Inhabitants of the region, which is about the size of the state of California, speak dozens of distinct languages and belong to approximately 50 different ethnic groups.
As the Soviet Union began to break up in the late 1980s, several of these ethnic groups began to take up arms to win their own independent territories. In the following decade, hundreds of thousands of people died in the conflicts that resulted.

**CHECHNYA** Among the republics that remained part of Russia after the collapse of the Soviet Union, Chechnya has experienced the worst violence. In response to Chechnya’s demand for independence, Russia invaded Chechnya twice in the 1990s, causing over 100,000 casualties.

Russia first invaded Chechnya in 1994. By the spring of 1995, Russian troops were in control of more than two-thirds of the republic’s territory, and they had captured the capital, Grozny, and other major towns. But Chechen rebels continued to fight from hideouts in the surrounding mountains. Unable to defeat the rebels, Russia reluctantly entered into a peace agreement with Chechnya, ending the first phase of the war in August 1996.

Russia invaded Chechnya again in October 1999 after a series of bombings blamed on Chechen terrorists. In the following years, the conflict seemed to have calmed, but in March 2010 bombs went off in the Moscow subway, killing or injuring dozens. Widows of Chechen rebels were named as the bombers.

**GEORGIA** The Republic of Georgia has also experienced instability. From 1989 to 1992, the Ossetian people living in the region of South Ossetia fought against Georgian troops to unite South Ossetia with North Ossetia, in Russia. A 1992 truce calmed the region, but the peace did not last. In August 2008, Georgia tried to regain control of South Ossetia by launching a military attack. Russia promptly sent troops into South Ossetia and bombed targets elsewhere in Georgia. After several days of heavy fighting, the Georgian troops were defeated. The opposing countries signed a ceasefire, but Russia maintained a military presence in the area.

Abkhazia, a once-popular resort area on the Black Sea, is another troubled region. Abkhazians declared independence in 1992 and forced up to 250,000 ethnic Georgians living there to leave. Many died while fleeing across snow-covered mountains. In 2008, fighting in South Ossetia spread to Abkhazia, and all Georgian troops were pushed out. The situation remains unsettled and tense.

**ARMENIA AND AZERBAIJAN** Conflict has also plagued the region south of Georgia, where Armenia and Azerbaijan fought over a mountainous area of Azerbaijan called Nagorno-Karabakh. Leaders in Azerbaijan say that the region’s history proves that Nagorno-Karabakh belongs to them. Armenia claims Nagorno-Karabakh because over three-quarters of its population is ethnic Armenian.
The dispute began long ago and was raging in the early 1920s, when the Soviet army took control of the region. Soviet authorities kept the dispute under control until the late 1980s, when Armenians and Azerbaijanis began to fight for control over the region.

The fighting continued on and off for nearly six years. Eventually Armenia won control of the territory. A cease-fire was declared in 1994, but by then, tens of thousands of people had died. Nearly a million had become refugees.

Hope on the Horizon?

In spite of all this conflict in the region, many believe that there is some hope for the future. In April 2001, U.S. Secretary of State Colin Powell hosted a round of direct talks between the presidents of Armenia and Azerbaijan. The talks, which were held in Florida, were aimed at reaching a lasting peace settlement between the two nations. However, as of 2007, the dispute had not been resolved.

Fighting has continued in Chechnya, and the human costs of the war have continued to mount. In February 2001, Russian officials reported that more than 15,000 soldiers (2,700 Russians and 13,000 Chechen guerrillas) had died since the second war began. Since then, the Russian army has had sporadic success shutting down the rebels. Before a full peace can be achieved, agreement must be reached on the fates of some 25,000 to 180,000 refugees who have been forced from their homes in the disputed areas. In the next section, you will read more about the economic challenges faced by Russian leaders since the fall of the Soviet Union.
The Struggle for Economic Reform

How does a nation change its economic system?

Main Ideas

- Russia has struggled to move from a command economy to a market economy.
- Russia’s enormous size and widespread criminal activity have made economic reform difficult.

Places & Terms

privatization
distance decay

A HUMAN PERSPECTIVE Russians have faced many hardships since the breakup of the Soviet Union. But few have been as difficult to overcome as the collapse of the Soviet command economy. After the Soviet Union collapsed in 1991, the region’s people began to participate in a capitalist system. One Russian bitterly summed up the sudden transition in this way: “You developed your capitalist markets in the West over hundreds of years, and our government wants our people to go to sleep one night in a Communist world and wake up the next morning in a capitalist one.” One of the toughest problems facing Russia’s leaders is how to carry out economic reforms without causing too much turmoil for the nation’s citizens.

Steps Toward Capitalism

After the Soviet collapse, Russia tried to move quickly toward a capitalist system. This meant ending the tight control that the central government held over economic activity.

PRIVATIZATION In January 1992, Russia removed the price controls that had been set by the Soviet government on goods sold within the country. The effect was dramatic. Almost immediately, the prices of many goods increased by 250 percent. In the same year, Russia began to sell government-owned businesses to individuals and private companies. This process was called privatization. But few Russians had enough money to buy large businesses. So, leaders offered vouchers to the public. The vouchers were like loans that could be used to purchase businesses. The purchasers promised to repay the government with future profits.

But the policy had mixed success. Many of the new businesses were not profitable, and their owners were unable to repay their vouchers. The failures contributed to an economic crash in Russia in 1998. In spite of this shaky start, though, over 60 percent of the country’s workforce worked in the private sector by the end of the 20th century.

THE HIGH COST OF ECONOMIC CHANGE Since the 1998 crash, Russia’s economy has moved slowly toward recovery. But the movement toward a market economy has yet to benefit most Russians. By the end of the 1990s, nearly 40 percent of the Russian population lived...
far below the poverty line. Some people even wondered whether things had been better under the Soviet Union.

**Obstacles to Economic Reform**

Russians have made slow, if painful, strides toward capitalism. Even so, many obstacles remain. Russia’s enormous size and the rise of organized crime are among the most important.

**DISTANCE DECAY** A major obstacle facing economic reformers is distance decay. This means that long distances between places make communication and transportation difficult. Russia is an enormous nation, stretching across 11 time zones. Spread over this vast area are 89 different regional governments. The interaction and cooperation of these regional leaders with Moscow is crucial if the government’s economic reforms are to be successful. But because the central government in Moscow has been weak, officials far from the capital sometimes refuse to carry out the government’s reform programs.

In the spring of 2000, Russian President Vladimir Putin created seven large federal districts to gain more control over regional leaders. Each has its own governor-general. Putin hoped that the heads of the new federal districts would force regional officials to carry out the economic reforms that Moscow wanted.

**Federal Districts of Russia**

![Map of Russia with federal districts highlighted.](map.png)

**SKILLBUILDER: Interpreting Maps**

1. **PLACE** What is the capital of the Northwest Federal District?
2. **LOCATION** Approximately how many miles separate Moscow and Khabarovsk?
ORGANIZED CRIME  As the government tries to improve the economy, it must also face a powerful enemy—organized crime. The “Russian mafia,” as criminal organizations in the republic are sometimes labeled, grew rapidly during the 1990s.

By the end of the decade, the mafia had created its own economy. In 1998, the government estimated that organized criminals controlled 40 percent of private companies and 60 percent of state-owned enterprises. Russian criminal activity also expanded outside of Russia. The mafia even tried to sell a Russian submarine to drug barons in Colombia.

The growth of organized crime has slowed economic reform by rewarding illegal activity over honest business. And because illegal activities often go undetected, the government cannot collect taxes on them. Russian officials have taken initiatives to combat organized crime, including the addition of more officers to a special tax police.

FUTURE PROSPECTS  In 2001, Russia’s prime minister reported increases in revenues. However, the global economic crisis of 2008 struck Russia hard, and unemployment increased dramatically. By 2010, the situation had improved somewhat.

Russia’s political future is also cause for concern. President Putin had tightened control of Russians’ freedoms. In 2008 Dmitry Medvedev was elected president of Russia, but Putin was named prime minister. As a result, many people—Russians and Westerners—worried that Putin’s repressive policies would continue.

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Reading Line and Pie Graphs

Russia’s economy has changed dramatically since the fall of the Soviet Union. To keep track of these changes and plan for the future, economists gather statistics. Presenting statistical data visually in graph form makes the data easier to read.

**THE LANGUAGE OF GRAPHS** Line graphs show the relation between two variables. The line graph below shows changes in Russia’s unemployment rate. The vertical axis lists rates of unemployment. The horizontal axis shows the passage of time.

**Pie graphs** use percentages to show the relationship of parts to a whole. The pie represents the whole, and each slice of the pie represents a part. The pie graph below shows the distribution of income in Russia.

### Economic Conditions in Russia

#### Percentage of Russian Labor Force Unemployed, 1992–2005

- **Percent**: 0, 3, 6, 9, 12, 15
- **SOURCE**: IMF Staff Country Report No. 06/431

#### Distribution of Income* in Russia, 2009

- **Income Ranges**:
  - Under $768
  - $768–$1536
  - $1537–$2304
  - $2305–$3072
  - $3073–$3840
  - $3841–$5760
  - $5761–$9600
  - over $9601
- **Percentage**:
  - Under $768: 1%
  - $768–$1536: 18.5%
  - $1537–$2304: 21.8%
  - $2305–$3072: 20.4%
  - $3073–$3840: 10.4%
  - $3841–$5760: 11.1%
  - $5761–$9600: 6.5%
  - over $9601: 10.3%
- **SOURCE**: Federal State Statistics Service of Russia

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**Map and Graph Skills Assessment**

1. **Seeing Patterns**
   - What was the trend in Russia’s unemployment rate after 1992?
   - When did it begin to change?

2. **Analyzing Data**
   - What was Russia’s unemployment rate in 1995?

3. **Analyzing Data**
   - About how much did the largest percentage of Russians earn in 2009?
As you have read, the breakup of the Soviet Union sparked regional conflicts and economic hardship. Equally serious were the problems caused by the Soviet Union’s nuclear programs. These included nuclear warheads atop ballistic missiles, poorly constructed and maintained nuclear power stations, and decaying nuclear waste dumps. All threatened the region’s people and environment.

**An Unwelcome Legacy**

When the USSR fell apart in the early 1990s, leaders around the world had serious concerns about the fate of the region’s nuclear weapons. The Soviet Union, which had once controlled those weapons, was now separated into 15 independent republics. World leaders wanted to know who was in control of the weapons, where they were located, and how well they were protected. They also wondered what would become of the nuclear scientists who had worked on the weapons systems.

The weapons industry was just part of the problem. As the 1986 disaster at Chernobyl had so clearly shown, many of the region’s nuclear reactors were badly built and poorly managed. Many reactors of the same design as the one that exploded at Chernobyl still exist. Observers fear another disaster may occur in the region.

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**Selected Nuclear Reactors in Former Soviet Republics**

In 1988, Russia destroyed its SS-12 missiles, in accordance with the terms of a 1987 treaty between the U.S. and the USSR.
The Consequences of Collapse

The nuclear legacy of the USSR has had serious political, economic, and environmental consequences.

**POLITICAL TENSIONS** When the communist government could no longer keep the USSR together, the security of the region’s nuclear materials became uncertain. This has caused political tension between the region’s leaders and other nations, especially the United States.

In January 2000, a task force of former U.S. officials issued a report that suggested just how important the issue is. The report said that the possibility of Russian nuclear materials being stolen or misused is “the most urgent unmet national security threat” facing the United States. The task force recommended a $30 billion program to help ensure the safety of Russia’s nuclear weapons.

**ECONOMIC HEALTH** The Soviet Union’s nuclear legacy also affects the economic health of Russia and the former Soviet Republics. For example, many regional leaders have been reluctant to shut down aging Soviet reactors because of the expense of building new plants that run on other kinds of fuel, such as natural gas.

Some republics have taken questionable steps to revive their economies. For instance, Russian lawmakers recently approved plans to make their country the world’s nuclear dump. In January 2001, the Duma, or legislature, gave preliminary approval to a plan to import, store, and treat nuclear waste from other countries. Officials hope the project will earn Russia as much as $21 billion over the next ten years.

**ENVIRONMENTAL PROSPECTS** Plans for the disposal of other nations’ nuclear waste angered Russian environmentalists. But other developments have given some hope that the region’s environmental prospects might improve. In December 2000, the government of Ukraine finally shut down the last active reactor at Chernobyl. Officials there pledged to spend millions of dollars on a new protective dome for the site.

Help has also come from overseas. In October 2000, a U.S.-funded treatment plant opened near the White Sea. The 17-million-dollar facility will treat radioactive waste from Russia’s fleet of nuclear submarines—waste that used to be dumped in the sea.

You will learn more about these developments as you examine the primary sources and complete the Case Study Project on the following pages.
Primary sources A to E on these two pages offer different views of the Soviet Union’s nuclear legacy. Use these resources and your own research to prepare a damage assessment report of the region’s nuclear situation today.

**Suggested Steps**

1. Choose a nuclear threat to investigate and examine its political, economic, and environmental consequences.
2. Use online and print resources to research your topic.
3. Be sure your damage assessment includes both causes and effects. Also, explain the steps being taken by regional officials to address the problems.
4. Search for interesting statistics, compelling stories, and first-person accounts to enliven your assessment.
5. Provide maps, charts, graphs, and photos to add visual interest to the assessment.
6. Prepare a brief oral introduction that introduces and explains your topic.

**Materials and Supplies**

- posterboard
- colored markers
- computer with Internet access
- reference books, newspapers, and magazines
- printer

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**PRIMARY SOURCE A**

**Photograph** In 1965, Soviet officials used a nuclear bomb to create this reservoir in Semey, Kazakhstan.

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**PRIMARY SOURCE B**

**Photograph** Scientists and technicians pass through a checkpoint at Moscow’s Kurchatov Institute, Russia’s leading nuclear research center.

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**PRIMARY SOURCE E**

**News Report** In his dispatch of September 30, 1997, London Daily Telegraph reporter Christopher Lockwood relates yet another terrible tale from Russia’s nuclear legacy of an environmental disaster waiting to happen.
There is no longer any threat of Russia's deliberately attacking the United States. But Moscow's still–formidable stocks of nuclear bombs, nuclear ingredients, and biological and chemical warfare agents pose a different kind of danger. Much of this material is inadequately secured, and the workers guarding it are paid poorly or not at all. That creates an unacceptably high risk that some material could be sold to potential aggressors like Iraq, Libya, North Korea, or Serbia. Many Russian weapons scientists are also unemployed or unpaid and vulnerable to foreign recruitment.

During the Cold War, the United States spent trillions of dollars to deter Russia from using its nuclear, biological, and chemical weapons. It would not take much more than $10 billion to eliminate most of the risks from those weapons today.
TODAY’S ISSUES IN RUSSIA
AND THE REPUBLICS

The Soviet Union’s Nuclear Legacy
• The impact of Soviet nuclear programs did not end with the fall of the Soviet Union in 1991. Russia and the Republics inherited the former state’s nuclear weapons, power plants, and waste.
• This legacy has had serious political, economic, and environmental consequences.

Regional Conflict
• Since the fall of the Soviet Union in 1991, a number of ethnic and religious groups have sought more control over their own affairs. Their demands have frequently led to conflict.
• Regional leaders who are trying to end these conflicts face a dilemma. How can they maintain order without resorting to the undemocratic rule of the past?

The Struggle for Economic Reform
• Another dilemma facing leaders in Russia and the former Soviet republics is how to move away from the old Soviet command economy toward a market economy.
• Leaders are struggling to make reforms without causing too much turmoil for citizens.

Reviewing Places & Terms
A. Briefly explain the importance of each of the following.
1. Caucasus
2. Chechnya
3. Nagorno-Karabakh
4. privatization
5. distance decay

B. Answer the questions about vocabulary in complete sentences.
6. In which nation is Chechnya located?
7. Which region is the subject of a dispute between Armenia and Azerbaijan?
8. How might a nation move from a command economy to a market economy?
9. What is another name for Caucasia?
10. What is the name for the decreasing interaction between places as the distance between them increases?

Main Ideas

Regional Conflict (pp. 385–387)
1. What is the connection between the fall of the Soviet Union and the outbreak of ethnic conflicts in Russia and the Republics?
2. Why might ethnic tensions in the Caucasus be stronger than in other regions?
3. In the Russian part of Caucasia, where has the most serious conflict taken place?

The Struggle for Economic Reform (pp. 388–391)
4. What has been one of the major goals of Russian economic reformers?
5. How have reformers moved Russia toward a market economy?
6. What are some of the problems faced by economic reformers?

Case Study: The Soviet Union’s Nuclear Legacy (pp. 392–395)
7. Why were world leaders concerned about the security of nuclear weapons in Russia and the Republics after 1991?
8. What other aspect of the Soviet nuclear legacy concerned observers?
9. How has the United States assisted Russia in dealing with the nuclear legacy of the Soviet Union?
10. How are the nuclear policies of Russia related to its economic problems?
Critical Thinking

1. Using Your Notes
Use your completed chart to answer these questions.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Causes</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 1: Conflict</td>
<td></td>
<td></td>
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<tr>
<td>Issue 2: Economy</td>
<td></td>
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</tr>
</tbody>
</table>

**a.** What caused several ethnic groups in the Caucasus to believe they might successfully demand independence in the 1990s?

**b.** What is the intended effect of Russia’s new federal districts?

2. Geographic Themes

**REGION** Why did the division of the USSR into 15 independent republics concern observers of the region’s nuclear programs?

Global Male Life Expectancy

Use the graph to answer the following questions.

1. **PLACE** How does male life expectancy in Russia differ from world trends?

2. **PLACE** What was the life expectancy of Russian men in 1990? In 2000?

3. **PLACE** What might account for the dip in life expectancy for Russian men?

3. Identifying Themes

Why did the United States fund a nuclear waste treatment plant near the White Sea? Which of the five themes applies to this situation?

4. Making Inferences

Why might Russian economic reformers worry about causing too much hardship for citizens?

5. Drawing Conclusions

Why do you think Russian legislators want to import, store, and treat nuclear waste from other countries in spite of the environmental risks involved?

For Additional Test Practice

hmhsocialstudies.com

TEST PRACTICE

Geographic Skills: Interpreting Graphs

**Global Male Life Expectancy**

Create another line graph that shows how the population of Russia changed during the same period of time.

GeoActivity

Use the links at hmhsocialstudies.com to do research on current economic conditions in Russia. Compare the statistics you find on the Russian economy, such as inflation and poverty rates, with statistics on the U.S. economy.

Creating a Multimedia Presentation Create a multimedia presentation of your findings. Include maps and graphs that visually present the information that you discovered.