CHAPTER

World War II, 1939-1945

Previewing Main Ideas

EMPIRE BUILDING Germany, Italy, and Japan tried to build empires. They began their expansion by conquering other nations and dominating them politically and economically.

Geography What areas did the Axis powers control at the height of their power?

SCIENCE AND TECHNOLOGY Far-reaching developments in science and technology changed the course of World War II. Improvements in aircraft, tanks, and submarines and the development of radar and the atomic bomb drastically altered the way wars were fought.

Geography Why might submarines have been a key weapon for the Axis powers in their fight against Great Britain?

ECONOMICS Fighting the Axis terror weakened the economies of Great Britain, the Soviet Union, and other European countries. In contrast, when the United States entered the war, its economy grew sharply. The strength of the American economy bolstered the Allied war effort.

Geography In terms of location, why was the American economy able to function at a high level while the European economies struggled?

INTEGRATED TECHNOLOGY

CeEdition

INTERNET RESOURCES

Go to **classzone.com** for:

Interactive Maps

- Interactive Visuals

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• Interactive Primary Sources **VIDEO** Patterns of Interaction:

Modern and Medieval

- Research Links
- Internet Activities
- Primary Sources
- Chapter Quiz

Maps

- Test Practice
- Current Events

EUROPE AND THE

Sept. 1939

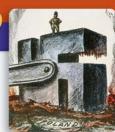
Germany invades Poland; France and Great Britain declare war on Germany. (political cartoon) ▼

June 1940

France surrenders to Germany; Battle of Britain begins.

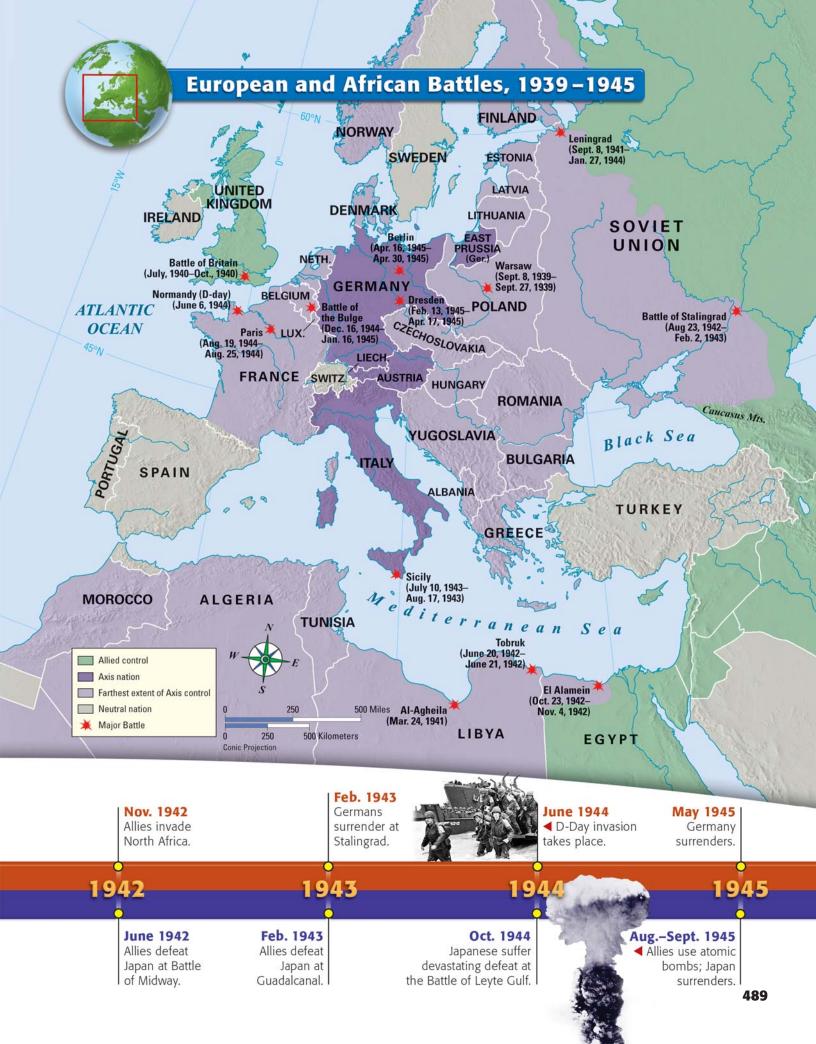
June 1941

Germans invade Soviet Union.



PACIFIC

Dec. 1941 Japan attacks Pearl Harbor.





Under what circumstances is war justified?

Every day your newspaper carries stories of the latest bombing raids on London and other British cities. The photographs of the devastation are shocking. As you read the stories and view the photographs, you wonder what the United States should do to help Great Britain, its longtime ally. The editorial pages of the newspapers ask the same question. Should the United States stand aside and let the European nations settle the issues themselves? Should it offer help to Great Britain in the form of arms and other supplies? Or should the United States join Britain in its struggle against the Axis powers?



▲ A German bombing raid on London during the Battle of Britain

EXAMINING the ISSUES

- What circumstances would lead you to support or oppose your country's participation in a war?
- How are civilians sometimes as much a part of a war effort as soldiers?

As a class, discuss these questions. In your discussion, weigh the arguments for and against fighting. As you read about World War II, think about the role that civilians play in a situation of total war. Think also about the hard moral choices that people often face in times of war.

Hitler's Lightning War

MAIN IDEA

EMPIRE BUILDING Using the sudden mass attack called the blitzkrieg, Germany overran much of Europe and North Africa.

WHY IT MATTERS NOW

Hitler's actions set off World War II. The results of the war still affect the politics and economics of today's world.

TERMS & NAMES

- nonaggression pact
- blitzkrieg
- Charles de Gaulle Atlantic Winston Churchill
- Battle of Britain
- Erwin Rommel
- - Charter

SETTING THE STAGE During the 1930s, Hitler played on the hopes and fears of the Western democracies. Each time the Nazi dictator grabbed new territory, he would declare an end to his demands. Peace seemed guaranteed—until Hitler moved again. After his moves into the Rhineland, Austria, and Czechoslovakia, Hitler turned his eyes to Poland. After World War I, the Allies had cut out the Polish Corridor from German territory to give Poland access to the sea. In 1939, Hitler demanded that the Polish Corridor be returned to Germany.

Germany Sparks a New War in Europe

At this point, as you recall from Chapter 15, Soviet dictator Joseph Stalin signed a ten-year **nonaggression pact** with Hitler. After being excluded from the Munich Conference, Stalin was not eager to join with the West. Also, Hitler had promised him territory. In a secret part of the pact, Germany and the Soviet Union agreed to divide Poland between them. They also agreed that the USSR could take over Finland and the Baltic countries of Lithuania, Latvia, and Estonia.

Germany's Lightning Attack After signing this nonaggression pact, Hitler quickly moved ahead with plans to conquer Poland. His surprise attack took place at dawn on September 1, 1939. German tanks and troop trucks rumbled across the Polish border. At the same time, German aircraft and artillery began a merciless bombing of Poland's capital, Warsaw.

France and Great Britain declared war on Germany on September 3. But Poland fell some time before those nations could make any military response. After his victory, Hitler annexed the western half of Poland. That region had a large German population.

The German invasion of Poland was the first test of Germany's newest military strategy—the **blitzkrieg** (BLIHTS•kreeg), or "lightning war." It involved using fast-moving airplanes and tanks, followed by massive infantry forces, to take enemy defenders by surprise and quickly overwhelm them. In the case of Poland, the strategy worked.

The Soviets Make Their Move On September 17, Stalin sent Soviet troops to occupy the eastern half of Poland. Stalin then moved to annex countries to the north of Poland. Lithuania, Latvia, and Estonia fell without a struggle, but Finland resisted. In November, Stalin sent nearly one million Soviet troops into

TAKING NOTES

Recognizing Effects Use a chart to identify the effects of some of the early events of World War II.

Cause	Effect
First blitzkrieg	
Allies stranded at Dunkirk	
Lend-Lease Act	

Finland. The Soviets expected to win a quick victory, so they were not prepared for winter fighting. This was a crucial mistake.

The Finns were outnumbered and outgunned, but they fiercely defended their country. In the freezing winter weather, soldiers on skis swiftly attacked Soviet positions. In contrast, the Soviets struggled to make progress through the deep snow. The Soviets suffered heavy losses, but they finally won through sheer force of numbers. By March 1940, Stalin had forced the Finns to accept his surrender terms.

The Phony War After they declared war on Germany, the French and British had mobilized their armies. They stationed their troops along the Maginot (MAZH•uh•NOH) Line, a system of fortifications along France's border with Germany. There they waited for the Germans to attack—but nothing happened. With little to do, the bored Allied soldiers stared eastward toward the enemy. Equally bored, German soldiers stared back from their Siegfried Line a few miles away. Germans jokingly called it the *sitzkrieg*, or "sitting war." Some newspapers referred to it simply as "the phony war."

Suddenly, on April 9, 1940, the calm ended. Hitler launched a surprise invasion of Denmark and Norway. In just four hours after the attack, Denmark fell. Two months later, Norway surrendered as well. The Germans then began to build bases along the Norwegian and Danish coasts from which they could launch strikes on Great Britain.

The Fall of France

In May of 1940, Hitler began a dramatic sweep through the Netherlands, Belgium, and Luxembourg. This was part of a strategy to strike at France. Keeping the Allies' attention on those countries, Hitler then sent an even larger force of tanks

Analyzing Motives A What were Stalin's goals in

A What were Stalin's goals in Europe at the beginning of World War II?



and troops to slice through the Ardennes (ahr DEHN). This was a heavily wooded area in northern France, Luxembourg, and Belgium. Moving through the forest, the Germans "squeezed between" the Maginot Line. From there, they moved across France and reached the country's northern coast in ten days.

Rescue at Dunkirk After reaching the French coast, the German forces swung north again and joined with German troops in Belgium. By the end of May 1940, the Germans had trapped the Allied forces around the northern French city of Lille (leel). Outnumbered, outgunned, and pounded from the air, the Allies retreated to the beaches of Dunkirk, a French port city near the Belgian border. They were trapped with their backs to the sea.

In one of the most heroic acts of the war, Great Britain set out to rescue the army. It sent a fleet of about 850 ships across the English Channel to Dunkirk. Along with Royal Navy ships, civilian craft—yachts, lifeboats, motorboats, paddle steamers, and fishing boats—joined the rescue effort. From May 26 to June 4, this amateur armada, under heavy fire from German bombers, sailed back and forth from Britain to Dunkirk. The boats carried some 338,000 battle-weary soldiers to safety.

France Falls Following Dunkirk, resistance in France began to crumble. By June 14, the Germans had taken Paris. Accepting the inevitable, French leaders surrendered on June 22, 1940. The Germans took control of the northern part of the country. They left the southern part to a puppet government headed by Marshal Philippe Pétain (pay•TAN), a French hero from World War I. The headquarters of this government was in the city of Vichy (VEESH•ee).

After France fell, Charles de Gaulle (duh GOHL), a French general, set up a government-in-exile in London. He committed all his energy to reconquering France. In a radio broadcast from England, de Gaulle called on the people of France to join him in resisting the Germans:

PRIMARY SOURCE

It is the bounden [obligatory] duty of all Frenchmen who still bear arms to continue the struggle. For them to lay down their arms, to evacuate any position of military importance, or agree to hand over any part of French territory, however small, to enemy control would be a crime against our country.

> GENERAL CHARLES DE GAULLE, quoted in Charles de Gaulle: A Biography

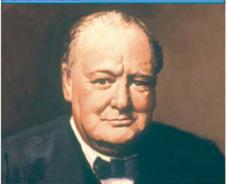
De Gaulle went on to organize the Free French military forces that battled the Nazis until France was liberated in 1944.

The Battle of Britain

With the fall of France, Great Britain stood alone against the Nazis. Winston Churchill, the new British prime minister, had already declared that his nation would never give in. In a rousing speech, he proclaimed, "We shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets . . . we shall never surrender."

Hitler now turned his mind to an invasion of Great Britain. His plan was first to knock out the Royal Air Force (RAF) and then to land more than 250,000 soldiers on England's shores.

History Makers



Winston Churchill 1874-1965

Possibly the most powerful weapon the British had as they stood alone against Hitler's Germany was the nation's prime minister-Winston Churchill. "Big Winnie," Londoners boasted, "was the lad for us."

Although Churchill had a speech defect as a youngster, he grew to become one of the greatest orators of all time. He used all his gifts as a speaker to rally the people behind the effort to crush Germany. In one famous speech he promised that Britain would

... wage war, by sea, land and air, with all our might and with all the strength that God can give us . . . against a monstrous tyranny.

INTEGRATED TECHNOLOGY

RESEARCH LINKS For more on Winston Churchill, go to classzone.com



▲ A London bus is submerged in a bomb crater after a German air raid.

In the summer of 1940, the Luftwaffe (LOOFT•VAHF•uh), Germany's air force, began bombing Great Britain. At first, the Germans targeted British airfields and aircraft factories. Then, on September 7, 1940, they began focusing on the cities, especially London, to break British morale. Despite the destruction and loss of life, the British did not waver.

The RAF, although badly outnumbered, began to hit back hard. Two technological devices helped turn the tide in the RAF's favor. One was an electronic tracking system known as radar. Developed in the late 1930s, radar could tell the number, speed, and direction of incoming warplanes. The other device was a German code-making machine named Enigma. A complete Enigma machine had been smuggled into Great Britain in the late 1930s. Enigma enabled the British to decode German secret messages. With information

gathered by these devices, RAF fliers could quickly launch attacks on the enemy.

To avoid the RAF's attacks, the Germans gave up daylight raids in October 1940 in favor of night bombing. At sunset, the wail of sirens filled the air as Londoners flocked to the subways, which served as air-raid shelters. Some rode out the bombing raids at home in smaller air-raid shelters or basements. This **Battle of Britain** continued until May 10, 1941. Stunned by British resistance, Hitler decided to call off his attacks. Instead, he focused on the Mediterranean and Eastern Europe. The Battle of Britain taught the Allies a crucial lesson. Hitler's attacks could be blocked. **B**

The Mediterranean and the Eastern Front

The stubborn resistance of the British in the Battle of Britain caused a shift in Hitler's strategy in Europe. He decided to deal with Great Britain later. He then turned his attention east to the Mediterranean area and the Balkans—and to the ultimate prize, the Soviet Union.

Axis Forces Attack North Africa Germany's first objective in the Mediterranean region was North Africa, mainly because of Hitler's partner, Mussolini. Despite its alliance with Germany, Italy had remained neutral at the beginning of the war. With Hitler's conquest of France, however, Mussolini knew he had to take action. After declaring war on France and Great Britain, Mussolini moved into France.

Mussolini took his next step in North Africa in September 1940. While the Battle of Britain was raging, he ordered his army to attack British-controlled Egypt. Egypt's Suez Canal was key to reaching the oil fields of the Middle East. Within a week, Italian troops had pushed 60 miles inside Egypt, forcing British units back. Then both sides dug in and waited.

Britain Strikes Back Finally, in December, the British struck back. The result was a disaster for the Italians. By February 1941, the British had swept 500 miles across North Africa and had taken 130,000 Italian prisoners. Hitler had to step in to save his Axis partner. To reinforce the Italians, Hitler sent a crack German tank force, the Afrika Korps, under the command of General **Erwin Rommel**. In late March 1941, Rommel's Afrika Korps attacked. Caught by surprise, British forces retreated east to Tobruk, Libya. (See the map on page 489.)

Vocabulary

Luftwaffe is the German word for "air weapon."

MAIN IDEA

Recognizing Effects

B Why was the outcome of the Battle of Britain important for the Allies?

Vocabulary

The *Middle East* includes the countries of Southwest Asia and northeast Africa.

After fierce fighting for Tobruk, the British began to drive Rommel back. By mid-January 1942, Rommel had retreated to where he had started. By June 1942, the tide of battle turned again. Rommel regrouped, pushed the British back across the desert, and seized Tobruk—a shattering loss for the Allies. Rommel's successes in North Africa earned him the nickname "Desert Fox."

The War in the Balkans While Rommel campaigned in North Africa, other German generals were active in the Balkans. Hitler had begun planning to attack his ally, the USSR, as early as the summer of 1940. The Balkan countries of southeastern Europe were key to Hitler's invasion plan. Hitler wanted to build bases in southeastern Europe for the attack on the Soviet Union. He also wanted to make sure that the British did not interfere.

To prepare for his invasion, Hitler moved to expand his influence in the Balkans. By early 1941, through the threat of force, he had persuaded Bulgaria, Romania, and Hungary to join the Axis powers. Yugoslavia and Greece, which had pro-British governments, resisted. In early April 1941, Hitler invaded both countries. Yugoslavia fell in 11 days. Greece surrendered in 17. In Athens, the Nazis celebrated their victory by raising swastikas on the Acropolis.

Hitler Invades the Soviet Union With the Balkans firmly in control, Hitler could move ahead with Operation Barbarossa, his plan to invade the Soviet Union. Early in the morning of June 22, 1941, the roar of German tanks and aircraft announced the beginning of the invasion. The Soviet Union was not prepared for this attack. Although it had the largest army in the world, its troops were neither well equipped nor well trained.

The invasion rolled on week after week until the Germans had pushed 500 miles inside the Soviet Union. As the Soviet troops retreated, they burned and destroyed everything in the enemy's path. The Russians had used this scorched-earth strategy against Napoleon.

On September 8, German forces put Leningrad under siege. By early November, the city was completely cut off from the rest of the Soviet Union. To force a surrender, Hitler was ready to starve the city's more than 2.5 million inhabitants. German bombs destroyed warehouses where food was stored. Desperately hungry, people began eating cattle and horse feed, as well as cats and dogs and, finally, crows and rats. Nearly one million people died in Leningrad during the winter of 1941–1942. Yet the city refused to fall.

▼ Russian soldiers prepare to attack German lines outside Leningrad.



Impatient with the progress in Leningrad, Hitler looked to Moscow, the capital and heart of the Soviet Union. A Nazi drive on the capital began on October 2, 1941. By December, the Germans had advanced to the outskirts of Moscow. Soviet General Georgi Zhukov (ZHOO•kuhf) counterattacked. As temperatures fell, the Germans, in summer uniforms, retreated. Ignoring Napoleon's winter defeat 130 years before, Hitler sent his generals a stunning order: "No retreat!" German troops dug in about 125 miles west of Moscow. They held the line against the Soviets until March 1943. Hitler's advance on the Soviet Union gained nothing but cost the Germans 500,000 lives. ©

MAIN IDEA

Making Inferences

What does the fact that German armies were not prepared for the Russian winter indicate about Hitler's expectations for the Soviet campaign?

The United States Aids Its Allies

Most Americans felt that the United States should not get involved in the war. Between 1935 and 1937, Congress passed a series of Neutrality Acts. The laws made it illegal to sell arms or lend money to nations at war. But President Roosevelt knew that if the Allies fell, the United States would be drawn into the war. In September 1939, he asked Congress to allow the Allies to buy American arms. The Allies would pay cash and then carry the goods on their own ships.

Under the Lend-Lease Act, passed in March 1941, the president could lend or lease arms and other supplies to any country vital to the United States. By the summer of 1941, the U.S. Navy was escorting British ships carrying U.S. arms. In response, Hitler ordered his submarines to sink any cargo ships they met.

Although the United States had not yet entered the war, Roosevelt and Churchill met secretly and issued a joint declaration called the **Atlantic Charter**. It upheld free trade among nations and the right of people to choose their own government. The charter later served as the Allies' peace plan at the end of World War II.

On September 4, a German U-boat fired on a U.S. destroyer in the Atlantic. In response, Roosevelt ordered navy commanders to shoot German submarines on sight. The United States was now involved in an undeclared naval war with Hitler. To almost everyone's surprise, however, the attack that actually drew the United States into the war did not come from Germany. It came from Japan.



ASSESSMENT

TERMS & NAMES 1. For each term or name, write a sentence explaining its significance.

nonaggression pact
 blitzkrieg
 Charles de Gaulle
 Winston Churchill
 Battle of Britain
 Erwin Rommel
 Atlantic Charter

USING YOUR NOTES

2. Which of the listed events might be considered a turning point for the Allies? Why?



MAIN IDEAS

- 3. Why were the early months of World War II referred to as the "phony war"?
- **4.** Why was Egypt of strategic importance in World War II?
- 5. Why did President Franklin Roosevelt want to offer help to the Allies?

CRITICAL THINKING & WRITING

- 6. CLARIFYING What do you think is meant by the statement that Winston Churchill possibly was Britain's most powerful weapon against Hitler's Germany?
- 7. MAKING INFERENCES What factors do you think a country's leaders consider when deciding whether to surrender or fight?
- **8. COMPARING** How were Napoleon's invasion of Russia and Hitler's invasion of the Soviet Union similar?
- WRITING ACTIVITY EMPIRE BUILDING Write a magazine article on German conquests in Europe through 1942.

CONNECT TO TODAY PREPARING AN ORAL REPORT

Conduct research into "stealth" technology, which is designed to evade radar. Use your findings to prepare a brief **oral report** titled "How Stealth Technology Works."

Japan's Pacific Campaign

MAIN IDEA

EMPIRE BUILDING Japan attacked Pearl Harbor in Hawaii and brought the United States into World War II.

WHY IT MATTERS NOW

World War II established the United States as a leading player in international affairs.

TERMS & NAMES

- IsorokuYamamoto
- Pearl Harbor
- Battle of Midway
- Douglas MacArthur
- Battle of Guadalcanal

SETTING THE STAGE Like Hitler, Japan's military leaders also had dreams of empire. Japan's expansion had begun in 1931. That year, Japanese troops took over Manchuria in northeastern China. Six years later, Japanese armies swept into the heartland of China. They expected quick victory. Chinese resistance, however, caused the war to drag on. This placed a strain on Japan's economy. To increase their resources, Japanese leaders looked toward the rich European colonies of Southeast Asia.

Surprise Attack on Pearl Harbor

By October 1940, Americans had cracked one of the codes that the Japanese used in sending secret messages. Therefore, they were well aware of Japanese plans for Southeast Asia. If Japan conquered European colonies there, it could also threaten the American-controlled Philippine Islands and Guam. To stop the Japanese advance, the U.S. government sent aid to strengthen Chinese resistance. And when the Japanese overran French Indochina—Vietnam, Cambodia, and Laos—in July 1941, Roosevelt cut off oil shipments to Japan.

Despite an oil shortage, the Japanese continued their conquests. They hoped to catch the European colonial powers and the United States by surprise. So they planned massive attacks on British and Dutch colonies in Southeast Asia and on American outposts in the Pacific—at the same time. Admiral **Isoroku Yamamoto** (ih•soh•ROO•koo YAH•muh•MOH•toh), Japan's greatest naval strategist, also called for an attack on the U.S. fleet in Hawaii. It was, he said, "a dagger pointed at [Japan's] throat" and must be destroyed.

Day of Infamy Early in the morning of December 7, 1941, American sailors at **Pearl Harbor** in Hawaii awoke to the roar of explosives. A Japanese attack was underway! U.S. military leaders had known from a coded Japanese message that an attack might come. But they did not know when or where it would occur. Within two hours, the Japanese had sunk or damaged 19 ships, including 8 battleships, moored in Pearl Harbor. More than 2,300 Americans were killed—with over 1,100 wounded. News of the attack stunned the American people. The next day, President Roosevelt addressed Congress. December 7, 1941, he declared, was "a date which will live in infamy." Congress quickly accepted his request for a declaration of war on Japan and its allies.

TAKING NOTES

Recognizing Effects
Use a chart to identify
the effects of four major
events of the war in the
Pacific between 1941
and 1943.

Event	Effect



▲ The U.S.S. West Virginia is engulfed by flames after taking a direct hit during the Japanese attack on Pearl Harbor.

Almost at the same time of the Pearl Harbor attack, the Japanese launched bombing raids on the British colony of Hong Kong and American-controlled Guam and Wake Island. (See the map on the opposite page.) They also landed an invasion force in Thailand. The Japanese drive for a Pacific empire was under way.

Japanese Victories

Lightly defended, Guam and Wake Island quickly fell to Japanese forces. The Japanese then turned their attention to the Philippines. In January 1942, they marched into the Philippine capital of Manila. American and Filipino forces took up a defensive position on the Bataan (buh•TAN) Peninsula on the

northwestern edge of Manila Bay. At the same time, the Philippine government moved to the island of Corregidor just to the south of Bataan. After about three months of tough fighting, the Japanese took the Bataan Peninsula in April. Corregidor fell the following month.

The Japanese also continued their strikes against British possessions in Asia. After seizing Hong Kong, they invaded Malaya from the sea and overland from Thailand. By February 1942, the Japanese had reached Singapore, strategically located at the southern tip of the Malay Peninsula. After a fierce pounding, the colony surrendered. Within a month, the Japanese had conquered the resource-rich Dutch East Indies (now Indonesia), including the islands of Java, Sumatra, Borneo, and Celebes (SEHL•uh•BEEZ). The Japanese also moved westward, taking Burma. From there, they planned to launch a strike against India, the largest of Great Britain's colonies.

By the time Burma fell, Japan had taken control of more than 1 million square miles of Asian land. About 150 million people lived in this vast area. Before these conquests, the Japanese had tried to win the support of Asians with the anticolonialist idea of "East Asia for the Asiatics." After victory, however, the Japanese quickly made it clear that they had come as conquerors. They often treated the people of their new colonies with extreme cruelty.

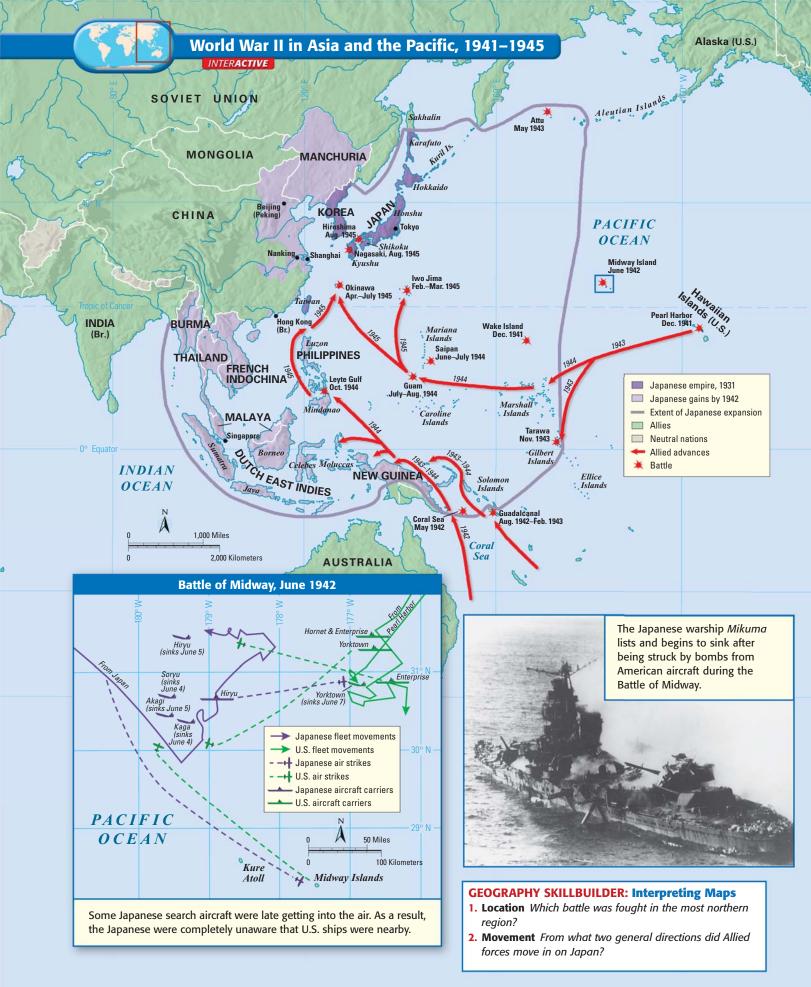
However, the Japanese reserved the most brutal treatment for Allied prisoners of war. The Japanese considered it dishonorable to surrender, and they had contempt for the prisoners of war in their charge. On the Bataan Death March—a forced march of more than 50 miles up the peninsula—the Japanese subjected their captives to terrible cruelties. One Allied prisoner of war reported:

PRIMARY SOURCE

I was questioned by a Japanese officer, who found out that I had been in a Philippine Scout Battalion. The [Japanese] hated the Scouts. . . . Anyway, they took me outside and I was forced to watch as they buried six of my Scouts alive. They made the men dig their own graves, and then had them kneel down in a pit. The guards hit them over the head with shovels to stun them and piled earth on top.

LIEUTENANT JOHN SPAINHOWER, quoted in War Diary 1939–1945

Of the approximately 70,000 prisoners who started the Bataan Death March, only 54,000 survived.



The Allies Strike Back

After a string of victories, the Japanese seemed unbeatable. Nonetheless, the Allies—mainly Americans and Australians—were anxious to strike back in the Pacific. The United States in particular wanted revenge for Pearl Harbor. In April 1942, 16 B-25 bombers under the command of Lieutenant Colonel James H. Doolittle bombed Tokyo and several other Japanese cities. The bombs did little damage. The raid, however, made an important psychological point to both Americans and Japanese: Japan was vulnerable to attack.

The Allies Turn the Tide Doolittle's raid on Japan raised American morale and shook the confidence of some in Japan. As one Japanese citizen noted, "We started to doubt that we were invincible." In addition, some Japanese worried that defending and controlling a vast empire had caused them to spread their resources too thin.

Slowly, the Allies began to turn the tide of war. Early in May 1942, an American fleet with Australian support intercepted a Japanese strike force headed for Port Moresby in New Guinea. This city housed a critical Allied air base. Control of the air base would put the Japanese in easy striking distance of Australia.

In the battle that followed—the Battle of the Coral Sea—both sides used a new kind of naval warfare. The opposing ships did not fire a single shot. In fact, they often could not see one another. Instead, airplanes taking off from huge aircraft car-

riers attacked the ships. The Allies suffered more losses in ships and troops than did the Japanese. However, the Battle of the Coral Sea was something of a victory, for the Allies had stopped Japan's southward advance. **The Battle of Midway** Japan next targeted Midway Island, some 1,500 miles west of Hawaii, the location of a key

The Battle of Midway Japan next targeted Midway Island, some 1,500 miles west of Hawaii, the location of a key American airfield. Thanks to Allied code breakers, Admiral Chester Nimitz, commander in chief of the U.S. Pacific Fleet, knew that a huge Japanese force was heading toward Midway. Admiral Yamamoto himself was in command of the Japanese fleet. He hoped that the attack on Midway would draw the whole of the U.S. Pacific Fleet from Pearl Harbor to defend the island.

On June 4, with American forces hidden beyond the horizon, Nimitz allowed the Japanese to begin their assault on the island. As the first Japanese planes got into the air, American planes swooped in to attack the Japanese fleet. Many Japanese planes were still on the decks of the aircraft carriers. The strategy was a success. American pilots destroyed 332 Japanese planes, all four aircraft carriers, and one support ship. Yamamoto ordered his crippled fleet to withdraw. By June 7, 1942, the battle was over. The **Battle of Midway** turned the tide of war in the Pacific. (See the inset map on page 499.)

An Allied Offensive

With morale high after their victory at Midway, the Allies took the offensive. The war in the Pacific involved vast distances. Japanese troops had dug in on hundreds of islands across the ocean. General **Douglas MacArthur**, the commander of the Allied land forces in the Pacific, developed a plan to handle this problem.

Vocabulary *invincible:* unconquerable





General Douglas MacArthur 1880–1964

Douglas MacArthur's qualities as a leader and a fighting soldier emerged in France during World War I. Showing incredible dash and courage on the battlefield, he received several decorations for bravery. And he won promotion from the rank of major to brigadier general.

After serving in several positions in the United States, MacArthur received a posting to the Philippines in 1935. He remained there until shortly before the islands fell in 1941. But he left very reluctantly. In a message to the troops who remained behind, he vowed, "I shall return." As you will read later in the chapter, MacArthur kept his promise.

MAIN IDEA

Analyzing Motives

A Why might the Americans send their entire Pacific Fleet to defend Midway Island?

MAIN IDEA

Identifying Problems

B If the vast distances of the Pacific caused problems for the Allies, how might they have also caused problems for the Japanese?

MacArthur believed that storming each island would be a long, costly effort. Instead, he wanted to "island-hop" past Japanese strongholds. He would then seize islands that were not well defended but were closer to Japan. **B**

MacArthur's first target soon presented itself. U.S. military leaders had learned that the Japanese were building a huge air base on the island of Guadalcanal in the Solomon Islands. The Allies had to strike fast before the base was completed and became another Japanese stronghold. At dawn on August 7, 1942, several thousand U.S. Marines, with Australian support, landed on Guadalcanal and the neighboring island of Tulagi.

The marines had little trouble seizing Guadalcanal's airfield. But the battle for control of the island turned into a savage struggle as both sides poured in fresh troops. In February 1943, after six months of fighting on land and at sea, the **Battle of Guadalcanal** finally ended. After losing more than 24,000 of a force of 36,000 soldiers, the Japanese abandoned what they came to call "the Island of Death."

To American war correspondent Ralph Martin and the U.S. soldiers who fought there, Guadalcanal was simply "hell":



▲ U.S. Marines storm ashore at Guadalcanal.

PRIMARY SOURCE

Hell was red furry spiders as big as your fist, . . . enormous rats and bats everywhere, and rivers with waiting crocodiles. Hell was the sour, foul smell of the squishy jungle, humidity that rotted a body within hours. . . . Hell was an enemy . . . so fanatic that it used its own dead as booby traps.

RALPH G. MARTIN, The GI War

As Japan worked to establish a new order in Southeast Asia and the Pacific, the Nazis moved ahead with Hitler's design for a new order in Europe. This design included plans for dealing with those Hitler considered unfit for the Third Reich. You will learn about these plans in Section 3.

SECTION

2 ASSESSMENT

TERMS & NAMES 1. For each term or name, write a sentence explaining its significance.

Isoroku Yamamoto

Pearl Harbor

Battle of Midway

Douglas MacArthur

· Battle of Guadalcanal

USING YOUR NOTES

2. Which event was most important in turning the tide of the war in the Pacific against the Japanese? Why?



MAIN IDEAS

- **3.** How did the Japanese plan to catch the European colonial powers and the United States by surprise?
- 4. In what way was the Battle of the Coral Sea a new kind of naval warfare?
- **5.** What was General Douglas MacArthur's island-hopping strategy?

CRITICAL THINKING & WRITING

- **6. EVALUATING DECISIONS** Did Admiral Yamamoto make a wise decision in bombing Pearl Harbor? Why or why not?
- **7. ANALYZING MOTIVES** Why do you think the Japanese changed their approach from trying to win the support of the colonized peoples to acting as conquerors?
- **8. IDENTIFYING PROBLEMS** What problems did Japan face in building an empire in the Pacific?
- 9. WRITING ACTIVITY EMPIRE BUILDING Imagine you are a foreign diplomat living in Asia during World War II. Write journal entries describing the Japanese advance across Asia and the Pacific during 1941 and 1942.

INTEGRATED TECHNOLOGY INTERNET ACTIVITY

Use the Internet to research the Pearl Harbor Memorial in Hawaii. Create a **Web page** that describes the memorial and provides background information on the attack.

INTERNET KEYWORD
Pearl Harbor

The Holocaust

MAIN IDEA

EMPIRE BUILDING During the Holocaust, Hitler's Nazis killed six million Jews and five million other "non-Aryans."

WHY IT MATTERS NOW

The violence against Jews during the Holocaust led to the founding of Israel after World War II.

TERMS & NAMES

- Aryan
- "Final
- Holocaust Kristallnacht
- Solution" genocide
- ghetto

SETTING THE STAGE As part of their vision for Europe, the Nazis proposed a new racial order. They proclaimed that the Germanic peoples, or **Aryans**, were a "master race." (This was a misuse of the term Aryan. The term actually refers to the Indo-European peoples who began to migrate into the Indian subcontinent around 1500 B.C.) The Nazis claimed that all non-Aryan peoples, particularly Jewish people, were inferior. This racist message would eventually lead to the **Holocaust**, the systematic mass slaughter of Jews and other groups judged inferior by the Nazis.

TAKING NOTES

Analyzing Bias Use a web diagram to identify examples of Nazi persecution.



The Holocaust Begins

To gain support for his racist ideas, Hitler knowingly tapped into a hatred for Jews that had deep roots in European history. For generations, many Germans, along with other Europeans, had targeted Jews as the cause of their failures. Some Germans even blamed Jews for their country's defeat in World War I and for its economic problems after that war.

In time, the Nazis made the targeting of Jews a government policy. The Nuremberg Laws, passed in 1935, deprived Jews of their rights to German citizenship and forbade marriages between Jews and non-Jews. Laws passed later also limited the kinds of work that Jews could do.

"Night of Broken Glass" Worse was yet to come. Early in November 1938, 17-year-old Herschel Grynszpan (GRIHN•shpahn), a Jewish youth from Germany, was visiting an uncle in Paris. While Grynszpan was there, he received a postcard. It said that after living in Germany for 27 years, his father had been deported to Poland. On November 7, wishing to avenge his father's deportation, Grynszpan shot a German diplomat living in Paris.

When Nazi leaders heard the news, they launched a violent attack on the Jewish community. On November 9, Nazi storm troopers attacked Jewish homes, businesses, and synagogues across Germany and murdered close to 100 Jews. An American in Leipzig wrote, "Jewish shop windows by the hundreds were systematically . . . smashed. . . . The main streets of the city were a positive litter of shattered plate glass." It is for this reason that the night of November 9 became known as **Kristallnacht** (krih•STAHL•NAHKT), or "Night of Broken Glass." A 14-year-old boy described his memory of that awful night:

PRIMARY SOURCE

All the things for which my parents had worked for eighteen long years were destroyed in less than ten minutes. Piles of valuable glasses, expensive furniture, linens—in short, everything was destroyed. . . . The Nazis left us, yelling, "Don't try to leave this house! We'll soon be back again and take you to a concentration camp to be shot."

M. I. LIBAU, quoted in Never to Forget: The Jews of the Holocaust

Kristallnacht marked a major step-up in the Nazi policy of Jewish persecution. The future for Jews in Germany looked truly grim.

A Flood of Refugees After *Kristallnacht*, some Jews realized that violence against them was bound to increase. By the end of 1939, a number of German Jews had fled to other countries. Many however, remained in Germany. Later, Hitler conquered territories in which millions more Jews lived.

At first, Hitler favored emigration as a solution to what he called "the Jewish problem." Getting other countries to continue admitting Germany's Jews became an issue, however. After admitting tens of thousands of Jewish refugees, such countries as France, Britain, and the United States abruptly closed their doors to further immigration. Germany's foreign minister observed, "We all want to get rid of our Jews. The difficulty is that no country wishes to receive them."

Isolating the Jews When Hitler found that he could not get rid of Jews through emigration, he put another plan into effect. He ordered Jews in all countries under his control to be moved to designated cities. In those cities, the Nazis herded the Jews into dismal, overcrowded **ghettos**, or segregated Jewish areas. The Nazis then sealed off the ghettos with barbed wire and stone walls. They hoped that the Jews inside would starve to death or die from disease.

Even under these horrible conditions, the Jews hung on. Some, particularly the Jews in Warsaw, Poland, formed resistance organizations within the ghettos. They also struggled to keep their traditions. Ghetto theaters produced plays and concerts. Teachers taught lessons in secret schools. Scholars kept records so that one day people would find out the truth.

Jona

▲ After 1941, all Jews in Germancontrolled areas had to wear a yellow Star of David patch.

The "Final Solution"

Hitler soon grew impatient waiting for Jews to die from starvation or disease. He decided to take more direct action. His plan was called the "**Final Solution**." It was actually a program of **genocide**, the systematic killing of an entire people.

▼ German soldiers round up Jews in the Warsaw ghetto.



Recognizing
Effects

A What steps did
Hitler take to rid
Germany of Jews?

Hitler believed that his plan of conquest depended on the purity of the Aryan race. To protect racial purity, the Nazis had to eliminate other races, nationalities, or groups they viewed as inferior—as "subhumans." They included Roma (gypsies), Poles, Russians, homosexuals, the insane, the disabled, and the incurably ill. But the Nazis focused especially on the Jews. **B**

The Killings Begin As Nazi troops swept across Eastern Europe and the Soviet Union, the killings began. Units from the SS (Hitler's elite security force) moved from town to town to hunt down Jews. The SS and their collaborators rounded up men, women, children, and even babies and took them to isolated spots. They then shot their prisoners in pits that became the prisoners' graves.

Jews in communities not reached by the killing squads were rounded up and taken to concentration camps, or slave-labor prisons. These camps were located mainly in Germany and Poland. Hitler hoped that the horrible conditions in the camps would speed the total elimination of the Jews.

The prisoners worked seven days a week as slaves for the SS or for German businesses. Guards severely beat or killed their prisoners for not working fast enough. With meals of thin soup, a scrap of bread, and potato peelings, most prisoners lost 50 pounds in the first few months. Hunger was so intense, recalled one survivor, "that if a bit of soup spilled over, prisoners would . . . dig their spoons into the mud and stuff the mess in their mouths."

The Final Stage Hitler's war on the Jews turned toward the "Final Solution" in 1942. The Nazis built extermination camps equipped with huge gas chambers that could kill as many as 6,000 human beings in a day. (See the map on page 519.)

When prisoners arrived at Auschwitz (OUSH•vihts), the largest of the extermination camps, they paraded before a committee of SS doctors. With a wave of the hand, these doctors separated the strong—mostly men—from the weak—mostly women, young children, the elderly, and the sick. Those labeled as weak would die that day. They were told to undress for a shower and then led into a chamber with

MAIN IDEA

Analyzing Bias

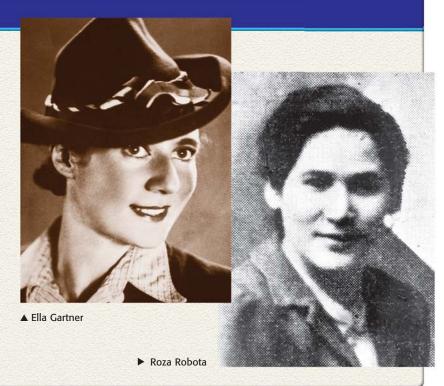
B How was the "Final Solution" a natural outcome of Nazi racial theory?

History in Depth

Jewish Resistance

Even in the extermination camps, Jews rose up and fought against the Nazis. At Treblinka in August 1943, and at Sobibor in October 1943, small groups of Jews revolted. They killed guards, stormed the camp armories and stole guns and grenades, and then broke out. In both uprisings, about 300 prisoners escaped. Most were killed soon after. Of those who survived, many joined up with partisan groups and continued to fight until the end of the war.

Late in 1944, prisoners at Auschwitz revolted, too. Like the escapees at Treblinka and Sobibor, most were caught and killed. Young women like Ella Gartner and Roza Robota made the Auschwitz uprising possible. Gartner smuggled gunpowder into the camp from the munitions factory where she worked. Robota helped organize resistance in the camp. Gartner and Robota were executed on January 6, 1945. Less than a month later, Auschwitz was liberated.



Jews Killed Under Nazi Rule*				
	Original Jewish Population	Jews Killed	Percent Surviving	
Poland	3,300,000	2,800,000	15%	
Soviet Union (area occupied by Germans)	2,100,000	1,500,000	29%	
Hungary	404,000	200,000	49%	
Romania	850,000 425,000 50%			
Germany/Austria	270,000 210,000 22%			
*Estimates	Source: Hannah Vogt, The Burden of Guilt			

fake showerheads. After the doors were closed, cyanide gas or carbon dioxide poured from the showerheads or holes in the ceiling. All inside were killed in minutes. Later, the Nazis installed crematoriums, or ovens, to burn the bodies.

The Survivors Some six million European Jews died in these death camps and in Nazi massacres. Fewer than four million survived. Some escaped the horrors of the death camps with help from non-Jewish people. These rescuers, at great risk to their own lives, hid Jews in their homes or helped them escape to neutral countries.

Those who survived the camps were changed forever by what they had experienced. As Elie Wiesel, nearly 15 years old when he entered Auschwitz, noted:

PRIMARY SOURCE

Never shall I forget the little faces of the children, whose bodies I saw turned into wreaths of smoke beneath a silent blue sky. Never shall I forget those flames which consumed my faith forever. . . . Never shall I forget those moments which murdered my God and my soul and turned my dreams to dust. . . . Never.

ELIE WIESEL, quoted in *Night*

SECTION

ASSESSMENT

TERMS & NAMES 1. For each term or name, write a sentence explaining its significance.

- Aryan
- Holocaust
- Kristallnacht
- ghetto
- "Final Solution"
- genocide

USING YOUR NOTES

2. What Nazi actions were part of the "Final Solution"?



MAIN IDEAS

- **3.** What was the new racial order proposed by the Nazis?
- **4.** What Nazi action marked the final stage of the "Final Solution"?
- 5. How did some non-Jews oppose Hitler's "Final Solution"?

CRITICAL THINKING & WRITING

- **6. ANALYZING MOTIVES** Why might people want to blame a minority group for most of their country's problems?
- 7. MAKING INFERENCES Why do you think the German people went along with the Nazi policy of persecution of the Jews?
- **8. RECOGNIZING EFFECTS** What impact did the Holocaust have on the Jewish population of Europe?
- 9. WRITING ACTIVITY SCIENCE AND TECHNOLOGY Write a persuasive essay discussing how German scientists, engineers, and doctors asked to participate in the Holocaust might have opposed Hitler's policy.

CONNECT TO TODAY CREATING A MAP

Find information on instances of genocide and ethnic cleansing in the last 20 years. Use the information to create an **annotated map** titled "Genocide in the Late 20th Century."

The Allied Victory

MAIN IDEA

EMPIRE BUILDING Led by the United States, Great Britain, and the Soviet Union, the Allies scored key victories and won the war

WHY IT MATTERS NOW

The Allies' victory in World War II set up conditions for both the Cold War and today's post-Cold War world.

TERMS & NAMES

- Dwight D.
 Eisenhower
- D-DayBattle of the
- Battle of Stalingrad
- Bulgekamikaze

SETTING THE STAGE On December 22, 1941, just after Pearl Harbor, Winston Churchill and President Roosevelt met at the White House to develop a joint war policy. Stalin had asked his allies to relieve German pressure on his armies in the east. He wanted them to open a second front in the west. This would split the Germans' strength by forcing them to fight major battles in two regions instead of one. Churchill agreed with Stalin's strategy. The Allies would weaken Germany on two fronts before dealing a deathblow. At first, Roosevelt was torn, but ultimately he agreed.

TAKING NOTES

Recognizing Effects
Use a chart to identify
the outcomes of several
major World War II
battles.

Battle	Outcome
Battle of El Alamein	
Battle of Stalingrad	
D-Day Invasion	

The Tide Turns on Two Fronts

Churchill wanted Britain and the United States to strike first at North Africa and southern Europe. The strategy angered Stalin. He wanted the Allies to open the second front in France. The Soviet Union, therefore, had to hold out on its own against the Germans. All Britain and the United States could offer in the way of help was supplies. Nevertheless, late in 1942, the Allies began to turn the tide of war both in the Mediterranean and on the Eastern Front.

The North African Campaign As you recall from Section 1, General Erwin Rommel took the key Libyan port city of Tobruk in June 1942. With Tobruk's fall, London sent General Bernard Montgomery—"Monty" to his troops—to take control of British forces in North Africa. By the time Montgomery arrived, however, the Germans had advanced to an Egyptian village called El Alamein (AL•uh•MAYN), west of Alexandria. (See the map on page 508.) They were dug in so well that British forces could not go around them. The only way to dislodge them, Montgomery decided, was with a massive frontal attack. The Battle of El Alamein began on the night of October 23. The roar of about 1,000 British guns took the Axis soldiers totally by surprise. They fought back fiercely and held their ground for several days. By November 4, however, Rommel's army had been beaten. He and his forces fell back.

As Rommel retreated west, the Allies launched Operation Torch. On November 8, an Allied force of more than 100,000 troops—mostly Americans—landed in Morocco and Algeria. American general **Dwight D. Eisenhower** led this force. Caught between Montgomery's and Eisenhower's armies, Rommel's Afrika Korps was finally crushed in May 1943.

The Battle for Stalingrad As Rommel suffered defeats in North Africa, German armies also met their match in the Soviet Union. The German advance had stalled at Leningrad and Moscow late in 1941. And the bitter winter made the situation worse. When the summer of 1942 arrived, however, Hitler sent his Sixth Army, under the command of General Friedrich Paulus, to seize the oil fields in the Caucasus Mountains. The army was also to capture Stalingrad (now Volgograd), a major industrial center on the Volga River. (See the map on page 508.)

The **Battle of Stalingrad** began on August 23, 1942. The Luftwaffe went on nightly bombing raids that set much of the city ablaze and reduced the rest to rubble. The situation looked desperate. Nonetheless, Stalin had already told his commanders to defend the city named after him to the death.



▲ Soviet troops launch an attack during the battle for Stalingrad.

By early November 1942, Germans controlled 90 percent of the ruined city. Then another Russian winter set in. On November 19, Soviet troops outside the city launched a counterattack. Closing in around Stalingrad, they trapped the Germans inside and cut off their supplies. General Paulus begged Hitler to order a retreat. But Hitler refused, saying the city was "to be held at all costs." A

On February 2, 1943, some 90,000 frostbitten, half-starved German troops surrendered to the Soviets. These pitiful survivors were all that remained of an army of 330,000. Stalingrad's defense had cost the Soviets over one million soldiers. The city was 99 percent destroyed. However, the Germans were now on the defensive, with the Soviets pushing them steadily westward.

The Invasion of Italy As the Battle of Stalingrad raged, Stalin continued to urge the British and Americans to invade France. However, Roosevelt and Churchill decided to attack Italy first. On July 10, 1943, Allied forces landed on Sicily and captured it from Italian and German troops about a month later.

The conquest of Sicily toppled Mussolini from power. On July 25, King Victor Emmanuel III had the dictator arrested. On September 3, Italy surrendered. But the Germans seized control of northern Italy and put Mussolini back in charge. Finally, the Germans retreated northward, and the victorious Allies entered Rome on June 4, 1944. Fighting in Italy, however, continued until Germany fell in May 1945. On April 27, 1945, Italian resistance fighters ambushed some German trucks near the northern Italian city of Milan. Inside one of the trucks, they found Mussolini disguised as a German soldier. They shot him the next day and later hung his body in downtown Milan for all to see.

The Allied Home Fronts

Wherever Allied forces fought, people on the home fronts rallied to support them. In war-torn countries like the Soviet Union and Great Britain, civilians endured extreme hardships. Many lost their lives. Except for a few of its territories, such as Hawaii, the United States did not suffer invasion or bombing. Nonetheless, Americans at home made a crucial contribution to the Allied war effort. Americans produced the weapons and equipment that would help win the war.

MAIN IDEA Making Inferences

A What advantages might a weaker army fighting on its home soil have over a stronger invading army?



Mobilizing for War Defeating the Axis powers required mobilizing for total war. In the United States, factories converted their peacetime operations to wartime production and made everything from machine guns to boots. Automobile factories produced tanks. A typewriter company made armorpiercing shells. By 1944, between 17 and 18 million U.S. workers—many of them women—had jobs in war industries.

With factories turning out products for the war, a shortage of consumer goods hit the United States. From meat and sugar to tires and gasoline, from nylon stockings to laundry soap, the American government rationed scarce items. Setting the speed limit at 35 miles per hour also helped to save gasoline and rubber. In European countries directly affected by the war, rationing was even more drastic.

To inspire their people to greater efforts, Allied governments conducted highly effective propaganda

campaigns. In the Soviet Union, a Moscow youngster collected enough scrap metal to produce 14,000 artillery shells. And a Russian family used its life savings to buy a tank for the Red Army. In the United States, youngsters saved their pennies and bought government war stamps and bonds to help finance the war.

War Limits Civil Rights Government propaganda also had a negative effect. After Pearl Harbor, a wave of prejudice arose in the United States against Japanese Americans. Most lived in Hawaii and on the West Coast. The bombing of Pearl Harbor frightened Americans. This fear, encouraged by government propaganda, was turned against Japanese Americans. They were suddenly seen as "the enemy." On February 19, 1942, President Roosevelt issued an executive order calling for the internment of Japanese Americans because they were considered a threat to the country. **B**

In March, the military began rounding up "aliens" and shipping them to relocation camps. The camps were restricted military areas located far away from the coast. Such locations, it was thought, would prevent these "enemy aliens" from assisting a Japanese invasion. However, two-thirds of those interned were Nisei, native-born American citizens whose parents were Japanese. Many of them volunteered for military service and fought bravely for the United States, even though their families remained in the camps.

Victory in Europe

While the Allies were dealing with issues on the home front, they also were preparing to push toward victory in Europe. In 1943, the Allies began secretly building an invasion force in Great Britain. Their plan was to launch an attack on Germanheld France across the English Channel.

The D-Day Invasion By May 1944, the invasion force was ready. Thousands of planes, ships, tanks, and landing craft and more than three million troops awaited the order to attack. General Dwight D. Eisenhower, the commander of this enormous force, planned to strike on the coast of Normandy, in northwestern France. The Germans knew that an attack was coming. But they did not know where it would be launched. To keep Hitler guessing, the Allies set up a huge dummy army with its own headquarters and equipment. This make-believe army appeared to be preparing to attack the French seaport of Calais (ka•LAY).



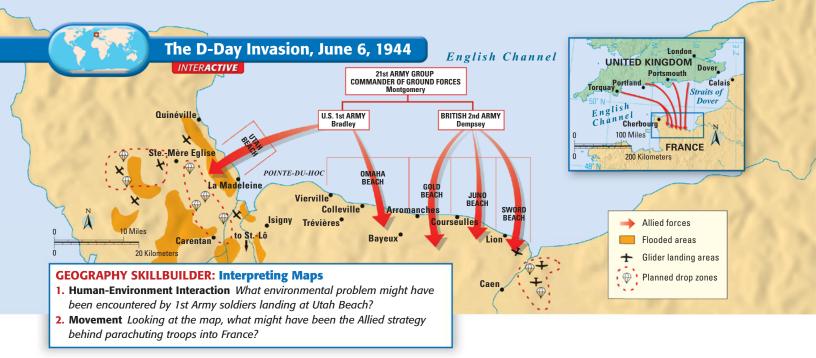
▲ American schoolchildren helped the war effort by recycling scrap metal and rubber and by buying war bonds.

in limited amounts

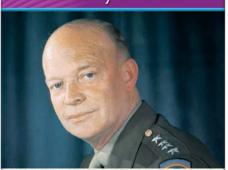
Vocabulary *rationed*: distributed

MAIN IDEA

Analyzing MotivesWhy did U.S. government propaganda try to portray the Japanese as sinister?



History Makers



General Dwight D. Eisenhower 1890–1969

In his career, U.S. General Dwight Eisenhower had shown an uncommon ability to work with all kinds of people—even competitive Allies. His chief of staff said of Eisenhower, "The sun rises and sets on him for me." He was also wildly popular with the troops, who affectionately called him "Uncle Ike."

So it was not a surprise when, in December 1943, U.S. Army Chief of Staff George Marshall named Eisenhower as supreme commander of the Allied forces in Europe. The new commander's "people skills" enabled him to join American and British forces together to put a permanent end to Nazi aggression.

INTEGRATED TECHNOLOGY

INTERNET ACTIVITY Create an illustrated report on Eisenhower's military career. Go to **classzone.com** for your research.

Code-named Operation Overlord, the invasion of Normandy was the largest land and sea attack in history. The invasion began on June 6, 1944—known as **D-Day**. At dawn on that day, British, American, French, and Canadian troops fought their way onto a 60-mile stretch of beach in Normandy. (See the map on this page.) The Germans had dug in with machine guns, rocket launchers, and cannons. They sheltered behind concrete walls three feet thick. Not surprisingly, the Allies took heavy casualties. Among the American forces alone, more than 2,700 men died on the beaches that day.

Despite heavy losses, the Allies held the beachheads. Within a month of D-Day, more than one million additional troops had landed. Then, on July 25, the Allies punched a hole in the German defenses near Saint-Lô (san•LOH), and the United States Third Army, led by General George Patton, broke out. A month later, the Allies marched triumphantly into Paris. By September, they had liberated France, Belgium, and Luxembourg. They then set their sights on Germany.

The Battle of the Bulge As Allied forces moved toward Germany from the west, the Soviet army was advancing toward Germany from the east. Hitler now faced a war on two fronts. In a desperate gamble, he decided to counterattack in the west. Hitler hoped a victory would split American and British forces and break up Allied supply lines. Explaining the reasoning behind his plan, Hitler said, "This battle is to decide whether we shall live or die. . . . All resistance must be broken in a wave of terror."

On December 16, German tanks broke through weak American defenses along a 75-mile front in the Ardennes. The push into Allied lines gave the campaign its name—the **Battle of the Bulge**. Although caught off guard, the Allies eventually pushed the Germans back. The Germans had little choice but to retreat, since there were no reinforcements available.

Vocabulary

beachheads: enemy shoreline captured just before invading forces move inland **Germany's Unconditional Surrender** After the Battle of the Bulge, the war in Europe rapidly drew to a close. In late March 1945, the Allies rolled across the Rhine River into Germany. By the middle of April, a noose was closing around Berlin. About three million Allied soldiers approached Berlin from the southwest. Another six million Soviet troops approached from the east. By April 25, 1945, the Soviets had surrounded the capital and were pounding the city with artillery fire.

While Soviet shells burst over Berlin, Hitler prepared for his end in an underground headquarters beneath the crumbling city. On April 29, he married his long-time companion, Eva Braun. The next day, Hitler and Eva Braun committed suicide. Their bodies were then carried outside and burned.

On May 7, 1945, General Eisenhower accepted the unconditional surrender of the Third Reich from the German military. President Roosevelt, however, did not live to witness the long-awaited victory. He had died suddenly on April 12, as Allied armies were advancing toward Berlin. Roosevelt's successor, Harry Truman, received the news of the Nazi surrender. On May 9, the surrender was officially signed in Berlin. The United States and other Allied powers celebrated V-E Day—Victory in Europe Day. After nearly six years of fighting, the war in Europe had ended.

Victory in the Pacific

Although the war in Europe was over, the Allies were still fighting the Japanese in the Pacific. With the Allied victory at Guadalcanal, however, the Japanese advances in the Pacific had been stopped. For the rest of the war, the Japanese retreated before the counterattack of the Allied powers.

The Japanese in Retreat By the fall of 1944, the Allies were moving in on Japan. In October, Allied forces landed on the island of Leyte (LAY•tee) in the Philippines. General Douglas MacArthur, who had been ordered to leave the islands before

their surrender in May 1942, waded ashore at Leyte with his troops. On reaching the beach, he declared, "People of the Philippines, I have returned."

Actually, the takeover would not be quite that easy. The Japanese had devised a bold plan to halt the Allied advance. They would destroy the American fleet, thus preventing the Allies from resupplying their ground troops. This plan, however, required risking almost the entire Japanese fleet. They took this gamble on October 23, in the Battle of Leyte Gulf. Within four days, the Japanese navy had lost disastrously—eliminating it as a fighting force in the war. Now, only the Japanese army and the feared kamikazes were Japanese suicide pilots. They would sink Allied ships by crash-diving their bomb-filled planes into them.

In March 1945, after a month of bitter fighting and heavy losses, American Marines took Iwo Jima (EE•wuh JEE•muh), an island 760 miles from Tokyo. On April 1, U.S. troops moved onto the island of Okinawa, only about 350 miles from southern Japan. The Japanese put up a desperate fight. Nevertheless, on June 21, one of the bloodiest land battles of the war ended. The Japanese lost over 100,000 troops, and the Americans 12,000.

▼ U.S. marines raise the Stars and Stripes after their victory at Iwo Jima.

Vocabulary

These pilots took their name from the kamikaze, or "divine wind," that saved Japan from a Mongol invasion in 1281.

Global Impact: Arming for War

The Atomic Bomb

On the eve of World War II, scientists in Germany succeeded in splitting the nucleus of a uranium atom, releasing a huge amount of energy. Albert Einstein wrote to President Franklin Roosevelt and warned him that Nazi Germany might be working to develop atomic weapons. Roosevelt responded by giving his approval for an American program, later code-named the Manhattan Project, to develop an atomic bomb. Roosevelt's decision set off a race to ensure that the United States would be the first to develop the bomb.

▼ On the morning of August 6, 1945, the B-29 bomber *Enola Gay*, flown by Colonel Paul W. Tibbets, Jr., took off from Tinian Island in the Mariana Islands.



Patterns of Interaction video series

Arming for War: Modern and Medieval Weapons

Just as in World War I, the conflicts of World War II spurred the development of ever more powerful weapons. Mightier tanks, more elusive submarines, faster fighter planes—all emerged from this period. From ancient times to the present day, the pattern remains the same: Every new weapon causes other countries to develop weapons of similar or greater force. This pattern results in a deadly race for an ultimate weapon: for example, the atomic bomb.

Nagasaki citizens trudge through the still smoldering ruins of their city in this photograph by Yosuke Yamahata. ▼

► At precisely 8:16 A.M., the atomic bomb exploded above Hiroshima, a city on the Japanese island of Honshu.

Hiroshima: Day of Fire

Impact of the Bombing		
Ground temperatures 7,000°F		
Hurricane force winds	980 miles per hour	
Energy released	20,000 tons of TNT	
Buildings destroyed	62,000 buildings	
Killed immediately	70,000 people	
Dead by the end of 1945	140,000 people	
Total deaths related to A-bomb	210,000 people	

The overwhelming destructive power of the Hiroshima bomb, and of the bomb dropped on Nagasaki three days later, changed the nature of war forever. Nuclear destruction also led to questions about the ethics of scientists and politicians who chose to develop and use the bomb.

Connect to Today

- 1. Making Inferences What advantages did the United States have over Germany in the race to develop the atomic bomb?

See Skillbuilder Handbook, page R10.

2. Comparing and Contrasting If you were to design a memorial to the victims of the Hiroshima and Nagasaki bombings, what symbol would you use? Make a sketch of your memorial.



The Japanese Surrender After Okinawa, the next stop for the Allies had to be Japan. President Truman's advisers had informed him that an invasion of the Japanese homeland might cost the Allies half a million lives. Truman had to make a decision whether to use a powerful new weapon called the atomic bomb, or A-bomb. Most of his advisers felt that using it would bring the war to the quickest possible end. The bomb had been developed by the top-secret Manhattan Project, headed by General Leslie Groves and chief scientist J. Robert Oppenheimer. Truman first learned of the new bomb's existence when he became president.

The first atomic bomb was exploded in a desert in New Mexico on July 16, 1945. President Truman then warned the Japanese. He told them that unless they surrendered, they could expect a "rain of ruin from the air." The Japanese did not reply. So, on August 6, 1945, the United States dropped an atomic bomb on Hiroshima, a Japanese city of nearly

350,000 people. Between 70,000 and 80,000 people died in the attack. Three days later, on August 9, a second bomb was dropped on Nagasaki, a city of 270,000. More than 70,000 people were killed immediately. Radiation fallout from the two explosions killed many more.

The Japanese finally surrendered to General Douglas MacArthur on September 2. The ceremony took place aboard the United States battleship *Missouri* in Tokyo Bay. With Japan's surrender, the war had ended. Now, countries faced the task of rebuilding a war-torn world.



▲ J. Robert
Oppenheimer (left)
and General Leslie
Groves inspect the
site of the first
atomic bomb test
near Alamogordo,
New Mexico.

SECTION

4 ASSESSMENT

TERMS & NAMES 1. For each term or name, write a sentence explaining its significance.

- · Dwight D. Eisenhower
- · Battle of Stalingrad
- D-Day
- · Battle of the Bulge
- kamikaze

USING YOUR NOTES

2. Which battle do you think was most important in turning the war in favor of the Allies? Why?



MAIN IDEAS

- 3. Why did Stalin want the United States and Britain to launch a second front in the west?
- **4.** How did the Allies try to conceal the true location for the D-Day landings?
- **5.** What brought about the Japanese surrender?

CRITICAL THINKING & WRITING

- **6. CLARIFYING** How do governments gather support for a war effort on the home front?
- 7. ANALYZING ISSUES Should governments have the power to limit the rights of their citizens during wartime? Explain your answer.
- 8. FORMING AND SUPPORTING OPINIONS Did President Truman make the correct decision in using the atomic bomb? Why or why not?
- WRITING ACTIVITY SCIENCE AND TECHNOLOGY Write a research report on the work of the Manhattan Project in developing the atomic bomb.

CONNECT TO TODAY CREATING A POSTER

During World War II, the U.S. government used propaganda posters to encourage citizens to support the war effort. Create a similar kind of **poster** to encourage support for a war on litter in your neighborhood.

Europe and Japan in Ruins

MAIN IDEA

ECONOMICS World War II cost millions of human lives and billions of dollars in damages. It left Europe and Japan in ruins.

WHY IT MATTERS NOW

The United States survived World War II undamaged, allowing it to become a world leader.

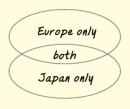
TERMS & NAMES

- Nuremberg Trials
- demilitarization
- democratization

SETTING THE STAGE After six long years of war, the Allies finally were victorious. However, their victory had been achieved at a very high price. World War II had caused more death and destruction than any other conflict in history. It left 60 million dead. About one-third of these deaths occurred in one country, the Soviet Union. Another 50 million people had been uprooted from their homes and wandered the countryside in search of somewhere to live. Property damage ran into billions of U.S. dollars.

TAKING NOTES

Comparing and
Contrasting Use a Venn
diagram to compare and
contrast the aftermath of
World War II in Europe
and Japan.



Devastation in Europe

By the end of World War II, Europe lay in ruins. Close to 40 million Europeans had died, two-thirds of them civilians. Constant bombing and shelling had reduced hundreds of cities to rubble. The ground war had destroyed much of the countryside. Displaced persons from many nations were left homeless.

A Harvest of Destruction A few of the great cities of Europe—Paris, Rome, and Brussels—remained largely undamaged by war. Many, however, had suffered terrible destruction. The Battle of Britain left huge areas of London little more than blackened ruins. Warsaw, the capital of Poland, was almost completely destroyed. In 1939, Warsaw had a population of nearly 1.3 million. When Soviet soldiers entered the city in January 1945, only 153,000 people remained. Thousands of tons of Allied bombs had demolished 95 percent of the central area of Berlin. One U.S. officer stationed in the German capital reported, "Wherever we looked we saw desolation. It was like a city of the dead."

After the bombings, many civilians stayed where they were and tried to get on with their lives. Some lived in partially destroyed homes or apartments. Others huddled in cellars or caves made from rubble. They had no water, no electricity, and very little food.

A large number of people did not stay where they were. Rather, they took to the roads. These displaced persons included the survivors of concentration camps, prisoners of war, and refugees who found themselves in the wrong country when postwar treaties changed national borders. They wandered across Europe, hoping to find their families or to find a safe place to live.

Simon Weisenthal, a prisoner at Auschwitz, described the search made by Holocaust survivors:

Costs of World War II: Allies and Axis			
	Direct War Costs	Military Killed/Missing	Civilians Killed
United States	\$288.0 billion*	292,131**	_
Great Britain	\$117.0 billion	272,311	60,595
France	\$111.3 billion	205,707***	173,260 [†]
USSR	\$93.0 billion	13,600,000	7,720,000
Germany	\$212.3 billion	3,300,000	2,893,000††
Japan	\$41.3 billion	1,140,429	953,000
* In 1994 dollars. ** An additional 115,187 servicemen died from non-battle causes. *** Before surrender to Nazis. † Includes 65,000 murdered Jews. † Includes about 170,000 murdered Jews and 56,000 foreign civilians in Germany.		SKILLBUILDER: Interpreting © 1. Drawing Conclusions Which of suffered the greatest human co. 2. Comparing How does U.S. sper with the spending of Germany of	the nations listed in the chart sts? nding on the war compare

PRIMARY SOURCE

Across Europe a wild tide of frantic survivors was flowing.... Many of them didn't really know where to go.... And yet the survivors continued their pilgrimage of despair.... "Perhaps someone is still alive...." Someone might tell where to find a wife, a mother, children, a brother—or whether they were dead.... The desire to find one's people was stronger than hunger, thirst, fatigue.

SIMON WEISENTHAL, quoted in Never to Forget: The Jews of the Holocaust

Misery Continues After the War The misery in Europe continued for years after the war. The fighting had ravaged Europe's countryside, and agriculture had been completely disrupted. Most able-bodied men had served in the military, and the women had worked in war production. Few remained to plant the fields. With the transportation system destroyed, the meager harvests often did not reach the cities. Thousands died as famine and disease spread through the bombed-out cities. The first postwar winter brought more suffering as people went without shoes and coats.

Postwar Governments and Politics

Despairing Europeans often blamed their leaders for the war and its aftermath. Once the Germans had lost, some prewar governments—like those in Belgium, Holland, Denmark, and Norway—returned quickly. In countries like Germany, Italy, and France, however, a return to the old leadership was not desirable. Hitler's Nazi government had brought Germany to ruins. Mussolini had led Italy to defeat. The Vichy government had collaborated with the Nazis. Much of the old leadership was in disgrace. Also, in Italy and France, many resistance fighters were communists.

After the war, the Communist Party promised change, and millions were ready to listen. In both France and Italy, Communist Party membership skyrocketed. The communists made huge gains in the first postwar elections. Anxious to speed up a political takeover, the communists staged a series of violent strikes. Alarmed French and Italians reacted by voting for anticommunist parties. Communist Party membership and influence began to decline. And they declined even more as the economies of France and Italy began to recover.

MAIN IDEA Identifying Problems

A Why might it have been difficult to find democratic government leaders in post-Nazi Germany?

Connect to Today



A New War Crimes Tribunal

In 1993, the UN established the International Criminal Tribunal for the Former Yugoslavia (ICTY) to prosecute war crimes committed in the Balkan conflicts of the 1990s. (See Chapter 35.) This was the first international war crimes court since those held in Nuremberg and Tokyo after World War II.

The ICTY issued its first indictment in 1994 and began trial proceedings in 1996. By mid-2007, 161 defendants had been indicted. Ratko Mladić and Radovan Karadzić, the leaders of the Bosnian Serbs, remain at large. The most prominent of those charged was Slobodan Milosevic (above), the former president of Yugoslavia. He was charged with 66 counts of genocide, crimes against humanity, and other war crimes. On March 11, 2006, Milosevic, who had suffered from poor health, was found dead in his cell.

The Nuremberg Trials While nations were struggling to recover politically and economically, they also tried to deal with the issue of war crimes. During 1945 and 1946, an International Military Tribunal representing 23 nations put Nazi war criminals on trial in Nuremberg, Germany. In the first of these **Nuremberg Trials**, 22 Nazi leaders were charged with waging a war of aggression. They were also accused of committing "crimes against humanity"—the murder of 11 million people.

Adolf Hitler, SS chief Heinrich Himmler, and Minister of Propaganda Joseph Goebbels had committed suicide long before the trials began. However, Hermann Göring, the commander of the Luftwaffe; Rudolf Hess, Hitler's former deputy; and other high-ranking Nazi leaders remained to face the charges.

Hess was found guilty and was sentenced to life in prison. Göring received a death sentence, but cheated the executioner by committing suicide. Ten other Nazi leaders were hanged on October 16, 1946. Hans Frank, the "Slayer of Poles," was the only convicted Nazi to express remorse: "A thousand years will pass," he said, "and still this guilt of Germany will not have been erased." The bodies of those executed were burned at the concentration camp of Dachau (DAHK•ow). They were cremated in the same ovens that had burned so many of their victims.

Postwar Japan

The defeat suffered by Japan in World War II left the country in ruins. Two million lives had been lost. The country's major cities, including the capital, Tokyo, had been largely destroyed by bombing raids. The atomic bomb had turned Hiroshima and Nagasaki into blackened wastelands. The Allies had stripped Japan of its colonial empire.

Occupied Japan General Douglas MacArthur, who had accepted the Japanese surrender, took charge of the U.S. occupation of Japan. MacArthur was determined to be fair and not to plant the seeds of a future war. Nevertheless, to ensure that peace would prevail, he began a process of **demilitarization**, or disbanding the Japanese armed forces. He achieved this quickly, leaving the Japanese with only a small police force. MacArthur also began bringing war criminals to trial. Out of 25 surviving defendants, former Premier Hideki Tojo and six others were condemned to hang.

MacArthur then turned his attention to **democratization**, the process of creating a government elected by the people. In February 1946, he and his American political advisers drew up a new constitution. It changed the empire into a constitutional monarchy like that of Great Britain. The Japanese accepted the constitution. It went into effect on May 3, 1947.

MacArthur was not told to revive the Japanese economy. However, he was instructed to broaden land ownership and increase the participation of workers and farmers in the new democracy. To this end, MacArthur put forward a plan that required absentee landlords with huge estates to sell land to the government. The government then sold the land to tenant farmers at reasonable prices. Other reforms pushed by MacArthur gave workers the right to create independent labor unions. **B**

MAIN IDEA

Making Inferences

B How would demilitarization and a revived economy help Japan achieve democracy?

Occupation Brings Deep Changes

The new constitution was the most important achievement of the occupation. It brought deep changes to Japanese society. A long Japanese tradition had viewed the emperor as divine. He was also an absolute ruler whose will was law. The emperor now had to declare that he was not divine. That admission was as shocking to the Japanese as defeat. His power was also dramatically reduced. Like the ruler of Great Britain, the emperor became largely a figurehead—a symbol of Japan. \bigcirc

The new constitution guaranteed that real political power in Japan rested with the people. The people elected a two-house parliament, called the Diet. All citizens over the age of 20, including women, had the right to vote. The government was led by a prime minister chosen by a majority of the Diet. A constitutional bill of rights protected basic freedoms. One more key provision of the constitution—Article 9—stated that the Japanese could no longer make war. They could fight only if attacked.

In September 1951, the United States and 47 other nations signed a formal peace treaty with Japan. The treaty officially ended the war. Some six months later, the U.S. occupation of Japan was over. However, with no armed forces, the Japanese agreed to a continuing U.S. military presence to protect their country. The United States and Japan, once bitter enemies, were now allies.

In the postwar world, enemies not only became allies. Sometimes, allies became enemies. World War II had changed the political landscape of Europe. The Soviet Union and the United States emerged from the war as the world's two major powers. They also ended the war as allies. However, it soon became clear that their postwar goals were very different. This difference stirred up conflicts that would shape the modern world for decades.



▲ Emperor Hirohito and U.S. General Douglas MacArthur look distant and uncomfortable as they pose here.

SECTION

MAIN IDEA

Analyzing CausesWhy did the

Americans choose

the British system

of government for

the Japanese,

instead of the American system?



TERMS & NAMES 1. For each term or name, write a sentence explaining its significance.

- Nuremberg Trials
- demilitarization
- democratization

USING YOUR NOTES

2. How did the aftermath of the war in Europe differ from the aftermath of the war in Japan?



MAIN IDEAS

- **3.** Why did so many Europeans take to the roads and wander the countryside after the war?
- **4.** How did the Allies deal with the issue of war crimes in Europe?
- 5. What three programs did General Douglas MacArthur introduce during the U.S. occupation of Japan?

CRITICAL THINKING & WRITING

- **6. ANALYZING CAUSES** Why do you think that many Europeans favored communism after World War II?
- **7. FORMING AND SUPPORTING OPINIONS** Do you think it was right for the Allies to try only Nazi and Japanese leaders for war crimes? Why or why not?
- **8. MAKING INFERENCES** Why was demilitarization such an important part of the postwar program for Japan?
- 9. WRITING ACTIVITY ECONOMICS In the role of an observer for the United States government, write a report on the economic situation in Europe after World War II. Illustrate your report with appropriate charts and graphs.

CONNECT TO TODAY CREATING A RADIO NEWS REPORT

Conduct research on a recent trial at the International War Crimes Tribunal in The Hague. Use your findings to create a two-minute radio **news report** on the trial.

Chapter 6 Assessment

TERMS & NAMES

For each term or name below, briefly explain its connection to World War II.

blitzkrieg
 Atlantic Charter

5. genocide

. Atlantic Charter 6. D-Day

3. Battle of Midway4. Holocaust8. demilitarization

MAIN IDEAS

Hitler's Lightning War Section 1 (pages 491–496)

- 9. What event finally unleashed World War II?
- **10.** Why was capturing Egypt's Suez Canal so important to the Axis powers?

Japan's Pacific Campaign Section 2 (pages 497–501)

- 11. What was Yamamoto's objective at Pearl Harbor?
- 12. How did Japan try to win support from other Asian countries?

The Holocaust Section 3 (pages 502–505)

- **13.** Name two tactics that Hitler used to rid Germany of Jews before creating his "Final Solution."
- 14. What tactics did Hitler use during the "Final Solution"?

The Allied Victory Section 4 (pages 506–513)

- **15.** Why were consumer goods rationed during the war?
- 16. What was Operation Overlord?

Europe and Japan in Ruins Section 5 (pages 514–517)

- 17. Why did Europeans leave their homes following the war?
- **18.** What were two of the most important steps that MacArthur took in Japan following the war?

CRITICAL THINKING

1. USING YOUR NOTES

Copy the chart into your notebook and specify for each listed battle or conflict whether the Axis powers or the Allied powers gained an advantage.

Battle/Conflict	Allied or Axis Powers?
Battle of Britain	
War in the Balkans	
Pearl Harbor	
Battle of the Coral Sea	
Battle of Midway	

2. DRAWING CONCLUSIONS

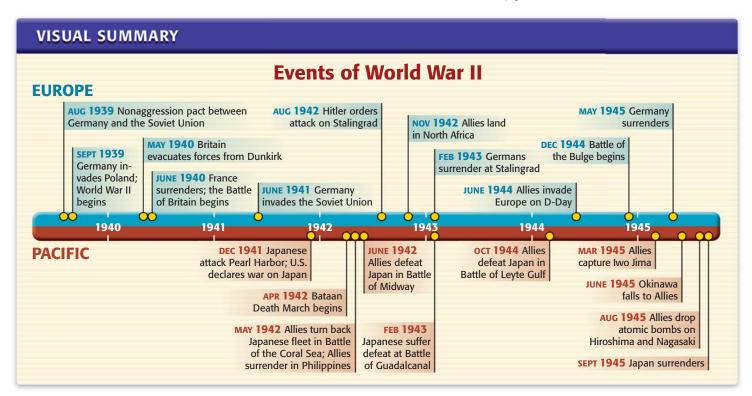
Consider the personalities, tactics, and policies of Hitler, Rommel, MacArthur, and Churchill. What qualities make a good war leader?

3. COMPARING AND CONTRASTING

EMPIRE BUILDING Compare and contrast Japan's and Germany's goals in World War II.

4. EVALUATING COURSES OF ACTION

ECONOMICS Why do you think the governments of the United States and other countries encouraged people on the home front to organize programs for such activities as scrap collection and Victory gardens?



STANDARDS-BASED ASSESSMENT

Use the excerpt and your knowledge of world history to answer question 1.

Additional Test Practice, pp. S1-S33

PRIMARY SOURCE

But there was no military advantage in hurling the bomb upon Japan without warning. The least we might have done was to announce to our foe that we possessed the atomic bomb; that its destructive power was beyond anything known in warfare; and that its terrible effectiveness had been experimentally demonstrated in this country. . . . If she [Japan] doubted the good faith of our representations, it would have been a simple matter to select a demonstration target in the enemy's own country at a place where the loss of human life would be at a minimum. If, despite such warning, Japan had still held out, we would have been in a far less questionable position had we then dropped the bombs on Hiroshima and Nagasaki.

The Christian Century, August 29, 1945

- 1. According to the writer, what is the least the Allies might have done with reference to using the atomic bomb?
 - A. tell Japan that they possessed the atomic bomb, a weapon with incredible destructive power
 - **B.** demonstrate it on a selected target in Japan where loss of life would be limited
 - C. invite Japanese leaders to a demonstration explosion of the bomb in the United States
 - **D.** drop the bomb on cities in Germany as well as on Japanese cities

Use the map and your knowledge of world history to answer question 2.



- 2. In which country were most death camps located?
 - A. Austria
- C. Poland
- **B.** Germany
- D. Yugoslavia

INTEGRATED TECHNOLOGY

TEST PRACTICE Go to classzone.com

- Diagnostic tests
- Strategies
- Tutorials
- Additional practice

ALTERNATIVE ASSESSMENT

1. Interact with History

On page 490, you had to decide under what circumstances war is justified. Now that you have read the chapter, do you think that Germany and Japan were justified in waging war? Were the Allies justified in declaring war on Germany and Japan? As you think about these questions, consider the moral issues that confront world leaders when they contemplate war as an option.

2. WRITING ABOUT HISTORY

SCIENCE AND TECHNOLOGY Conduct research on the scientific and technological developments used in the Allied war effort. Use your findings to create several **information cards** for a card series titled "Science and Technology During World War II." Organize the information on your cards in the following categories:

- name of invention or development
- country
- year
- · use in the war
- use today

INTEGRATED TECHNOLOGY

Writing an Internet-based Research Paper

During World War II, many consumer-goods manufacturers switched to the production of military goods. Many of these companies still exist. Working with a partner, use the Internet to research one such company. Find out what products the company made before and during the war, and how the company's wartime role affected its reputation. Go to the Web Research Guide at **classzone.com** to learn about conducting research on the Internet.

Present the results of your research in a well-organized paper. Be sure to

- apply a search strategy when using directories and search engines to locate Web resources.
- judge the usefulness and reliability of each Web site.
- correctly cite your Web sources.
- · edit for organization and correct use of language.



Technology of War

In Unit 4, you studied the economic and political upheavals that led to two world wars. For the first time, war involved not only the interested countries, but also their allies near and far and their colonies in far-flung places. In the next six pages, you will analyze the widespread use of machines and other technologies as tools for fighting and the increasingly involved role of civilians in war.



Maxim Machine Gun A

Hiram Maxim (above) invented the first portable, automatic machine gun. Machine guns fired hundreds of rounds per minute and were used by all the combatants in World War I.



Tanks, like the early British model shown above, enabled armies to travel over uneven ground and barbed wire. Although too slow to be used to full advantage at first, they were devastating against soldiers in trenches.

1884

1909 1915 1916

▼ First Military Plane

The earliest military planes were used for reconnaissance of enemy positions. A passenger could drop bombs (below) and, in later World War I models, operate a machine gun.



Poison Gas ▼

Poison gases were introduced to help break the stalemate of trench warfare. They caused suffocation, blistered skin, or blindness (below) to those exposed.

