

INDUSTRIAL WARFARE: WORLD WAR I

When the First World War began in August, 1914, the leaders believed that it would be a short war. The German Kaiser boasted that his troops would return victorious that autumn "before the leaves fall from the trees." The leaders were badly mistaken. Modern warfare proved to be appallingly brutal and costly, and the war did not end until November 1918. More than nine million soldiers were killed, and millions more were wounded.

The causes of the war were complex. The various nations of Europe had been preparing for a major war for many years, and countries allied themselves against each other based on economic competition, national pride, and historic rivalries. All of the major nations of Europe became involved in the war. Germany, Austria, and the Ottoman Empire (Turkey) faced an alliance of England, France, Russia, and several smaller nations. In 1917 the United States also joined the war.

New weapons made World War I different than earlier wars. Vastly improved artillery and the introduction of the machine gun made movement on the battlefield almost impossible. Trench warfare was common, because soldiers dug in to avoid enemy fire. Soldiers were slaughtered by the thousands when they attacked entrenched defenders.

A variety of new and terrible weapons were developed to break the stalemate of the trenches. Factories were converted to produce war material, and engineers worked on developing new weapons. The first of these was poison gas. Poison gas proved to be devastating at first, because it caused men to suffocate or go blind. Chlorine gas was first used by the Germans on January 31, 1915, at the battle of the Masurian Lakes and was used regularly by both sides for the rest of the war. Chlorine gas was later replaced by the more deadly phosgene gas and by mustard gas that caused burns to the skin and lungs. However, effective respirators were developed that allowed men to survive poison gas attacks. A second invention was the tank. Experimental tanks were first used by the English in 1916 at the battle of the Somme. The tank's armor protected the crew from rifle and machine gun fire, making attacks on opposing trenches possible. Airplanes were also first used in World War I. The war started only a decade after the Wright brothers' first flight, so the planes of the time were mainly used to spot enemy troop movements. Later planes were armed and were used to bomb enemy troops and supply lines and shoot down enemy planes. World War I also saw the first widespread use of submarines. While submarines took part in some naval battles, their biggest role was to sink enemy supply ships. Germany made the greatest use of submarines and sank hundreds of supply ships. The sinking of the *Lusitania* in 1915 by German submarines angered the American public, because 122 Americans were killed; Germany's widespread use of submarine warfare was one reason America joined the Allies in 1917.

The war ended on November 11, 1918, when Germany surrendered. The larger armies and greater industrial output of the Allies finally wore down the German armies. Germany's defeat was official with the signing of the Treaty of Versailles in 1919. Few problems were solved by the war, however, and World War II began just 20 years later.



Poison gas was first used in World War I.

Name _____

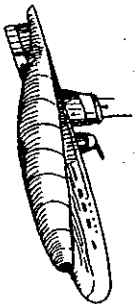
Date _____

(underline or highlight the text where you find your answers.)

CHALLENGES

1. In what years did World War I begin and end?
2. What was the Kaiser's boast?
3. How many soldiers were killed in the war?
4. Name one of the types of poison gas used in the war.
5. What country first used tanks in battle?
6. What country angered Americans by sinking the *Lusitania*? Why?
7. What was the major country on the losing side in World War I?
8. Planes were used for the first time in World War I. What activities did the planes perform?
9. World War I was different than previous wars. How had industrialization changed warfare?
10. What problems did the war solve?

U-Boats



On February 1, 1917, Germany announced a policy of unrestricted submarine warfare. An order went out to all German submarines to sink any vessel on sight. The order included neutral and passenger ships as well as ships of war.

Although the German navy was strong, it could not compete in numbers with the powerful British navy. To offset this imbalance, the Germans had built a large number of U-boats, or submarines. U-boat was short for *unterseeboot*, or "undersea boat." The Germans hoped the U-boats would enable them to sink enough Allied ships to turn the war in their favor.

Unrestricted submarine warfare ended Germany's compliance with "cruiser rules." According to cruiser rules, before a submarine could sink a ship, it had to surface and allow the passengers to leave the ship. The Germans followed this rule for almost two years after the *Lusitania* was torpedoed. However, they discontinued the policy when the British began to disguise warships as merchant vessels and blasted a number of U-boats out of the water. (The Germans resorted to the same deception and sank Allied merchant ships in record numbers.)

The Germans had hoped their U-boats would end the war before the United States had a chance to enter on the side of the Allies. However, this did not happen. Allied ships traveling in convoys (groups of merchant ships escorted by warships) succeeded in getting necessary supplies to the battlefield. Some of these ships were equipped with depth charges, drums of explosives that blew up at a certain depth. The depth charges destroyed many U-boats and helped bring the submarine threat to an end.

Solve the following math word problems to gain a better understanding of the destruction caused by German U-boats.

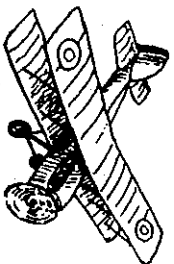
1. From February 1, 1917, until the end of the war, a period of about 21 months, German U-boats sank almost 3000 Allied and neutral ships.
This was an average of _____ ships a month. (Round your answer.)
2. More than 5000 Allied and neutral ships fell prey to German U-boats throughout the course of the war.
_____ percent of these losses occurred after February 1, 1917.

Answer the following questions.

3. What were "cruiser rules"?
4. Why did Germany work so hard to gain control of the seas?

Name _____

Dogfights



When World War I began, all the major powers had a small number of airplanes. Germany had the most, followed by France and Great Britain. Because the airplane was still in its infancy, at first it was used only for observation.

Early in the war, pilots became combative. They began by throwing bricks, rusty chains, and other objects at the enemy's open cockpit. This quickly developed into shooting at one another with pistols, muskets, rifles, and shotguns. The air war escalated in May 1915 when the Germans discovered how to fire a machine gun straight ahead without hitting the propeller blade. "Dogfights," which were individual battles between enemy pilots, became commonplace.

World War I pilots were daring and cocky, and they were looked upon as heroes wherever they went. There was a certain camaraderie (friendship and loyalty) that grew among them, even in regard to the enemy. When an enemy ace (a pilot who had shot down five or more enemy planes) was killed, pilots from the other side often flew over his home base, dipping the wings of their planes to show respect. At other times they dropped sympathy notes or flowers.

The war produced a number of aces. Germany's Baron Manfred von Richthofen, known as the Red Baron, was the top ace. He shot down 80 enemy planes. France's René Fonck shot down 75 enemy planes. England's Edward Mannock shot down 73, and Canada's Billy Bishop shot down 72. Eddie Rickenbacker, America's top ace, shot down 26 enemy aircraft.

Hoping to capitalize on its success in aerial warfare, Germany sent airships called zeppelins to bomb cities in Britain. However, this tactic had little success until World War II.

Circle the letter of each correct answer.

1. The country with the most airplanes at the beginning of the war was
 - a. Great Britain
 - b. Germany
 - c. France
2. In the early months of the war, the airplane's purpose was limited to
 - a. transportation
 - b. bombing
 - c. observation
3. A pilot became an "ace" when he shot down this number of enemy planes.
 - a. 5
 - b. 10
 - c. 15
4. The leading ace of World War I was
 - a. René Fonck
 - b. Billy Bishop
 - c. Manfred von Richthofen
5. The average life expectancy of a new pilot in World War I was from three to six weeks. Since this position was so dangerous, why do you think young men from all nations still volunteered by the thousands?

Name _____

Poison Gas

On the afternoon of April 22, 1915, French colonial troops in the trenches near Ypres in Belgium were startled to see a greenish-yellow cloud drifting toward them from the German lines. When the cloud reached them, the colonial troops began to cough and grab their throats. Many of them threw down their rifles and ran. Those who stayed died of suffocation.

The gas released by the Germans was chlorine gas, which caused death by suffocation. The Germans also used tear gas, which temporarily blinded all who came in contact with it. Germany's use of poison gas violated an agreement signed by forty-five nations in 1907 which prohibited the use of any weapon that caused unnecessary suffering. The Germans, however, violated that agreement in the false hope that poison gas would help break the deadlock on the western front.

One month after the gas attack at Ypres, the first gas masks came into use. These masks were rather inefficient at first, but they became more effective as the war went on. Even dogs that served as guards and helped locate wounded soldiers were outfitted with gas masks. More effective gas masks were especially needed when the Germans began using more potent gases such as phosgene and mustard gas.

Five months after the Germans initiated the use of gas, the Allied countries did the same. Gas attacks became routine, resulting in almost a million casualties (people killed, captured, injured, or missing) by the end of the war. Approximately 79,000 soldiers died as a result of being exposed to poison gas.

Fill in the blanks to complete the following statements about the use of poison gas.

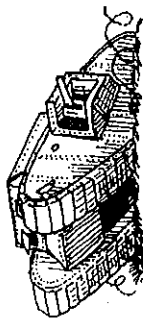
1. _____ was the first country to use poison gas in World War I.
2. The first gas attack during the war occurred near the Belgian town of _____.
3. The kind of gas used against French colonial troops in 1915 was _____.
4. Three other gases used during World War I were _____, _____, and _____.
5. About _____ soldiers were killed by poison gas in World War I.
6. Do you think it is ever acceptable for nations at war to use weapons, such as gas, that cause great suffering? Why or why not?

7. Some nations today are developing biological weapons (disease spreading) and chemical weapons. Should any action be taken to stop them? If so, what type of action?

Name _____

Tanks

In the early months of the war, the Germans had hoped their use of poison gas would break the stalemate on the western front. Their plan failed, and the war dragged on. By 1916 the British had a new weapon they believed might end the long period of trench warfare. This weapon was the tank.



The vehicle was called a tank to disguise its true purpose. When the first tanks were transported to France, it is said they were covered and labeled "water tanks for Russia." The word "tank" stuck and has been used ever since.

Although early tanks could travel only 3.7 miles per hour, they were effective when they did not break down or get stuck in mud. Tanks could run over machine gun nests, destroy barbed wire barriers, and provide cover for advancing soldiers. They even carried logs that were used as bridges when the troops crossed trenches.

Tanks first appeared in war at the Battle of the Somme in 1916. The Germans were stunned when they first saw the monstrous vehicles lumbering toward them. Some German soldiers stood and laughed, but most fled in terror. Only 18 of 49 tanks saw action at the Battle of the Somme. The others were halted by mechanical problems and muddy ground.

Tanks were used in mass formation for the first time at the Battle of Cambrai in 1917. The results were similar to those at the Somme. Of the 378 tanks engaged in the battle, 114 broke down. The tank had a long way to go before it would be considered a reliable fighting machine.

Respond to each of the following "what if" questions about the use of tanks during World War I.

1. What if the Germans had been first to use the tank?

2. What if the British had built a more reliable tank?

3. What if the tank had been identified by the Germans as a weapon when it was first shipped to France?

4. Write a sentence that expresses your opinion about the effectiveness of tanks during World War I.

The United States Enters

The United States managed to stay out of World War I for three years. Although many Americans sympathized with the Allied cause, few favored going to war. In general, Americans felt that what went on in Europe was of no concern to them.

Several things happened from 1914 on that gradually changed this viewpoint. Germany's invasion of neutral Belgium in 1914, the sinking of the *Lusitania* in 1915, and the effects of Allied propaganda slowly turned American opinion against the Germans. When Germany resumed unrestricted submarine warfare in February 1917, the United States broke off diplomatic relations with them.

American involvement in the war was assured even before the Germans gave free rein to their U-boats. In January 1917 the British intercepted a note sent by German foreign secretary Arthur Zimmermann to the German ambassador in Mexico. The note instructed the ambassador to urge Mexico to attack the United States. In return for its cooperation, the Germans promised to restore to Mexico land in the southwestern United States that it had lost during the Mexican War some seventy years earlier.

The British immediately forwarded the note to Washington, and Americans were outraged. When three American cargo ships were torpedoed and sunk by German U-boats two months later, President Woodrow Wilson asked Congress for a declaration of war. After remaining neutral for three years, the United States joined the fighting on April 6, 1917.

Number the following events to put them in chronological order.

1. _____ The United States declares war on Germany.
2. _____ Germany invades Belgium.
3. _____ The British intercept Zimmermann's note.
4. _____ The *Lusitania* is sunk by a German submarine.
5. _____ The United States breaks off diplomatic relations with Germany.
6. _____ German submarines sink three American cargo ships.

7. How did most Americans feel about the war when it broke out in 1914?

8. Why was Zimmermann's note so upsetting to the American people?

Doughboys

In the spring of 1917, the United States entered World War I ill-prepared to fight. It had an army of only 110,000 soldiers, and a call for volunteers failed to significantly increase the ranks. Consequently, a selective service law was passed in May 1917. Approximately 24,000,000 young Americans registered for the draft. Roughly 3,000,000 were enlisted, and some 1,000,000 young men went to serve in France.

Infantrymen of the American Expeditionary Force (A.E.F.) who went to France in 1917 were called doughboys. (Infantrymen are soldiers trained to fight on foot.) The exact origin of the term "doughboys" is unknown, although some sources say it came from soldiers in the 1850s who cleaned their belts with a "dough" made of clay. Regardless, the name was applied to all American foot soldiers who served in the trenches on the western front.

The arrival of the A.E.F. turned the tide in favor of the Allies. In the last year of the war, American doughboys took part in thirteen major operations. Their heroic fighting at Belleau Woods, Château-Thierry, and the Argonne Forest in northern France prevented the Germans from crossing the Marne again.

The fighting in the Argonne Forest produced the war's greatest hero. His name was Corporal Alvin York. (He later became Sergeant Alvin York.) On October 8, 1918, York singlehandedly killed the crew of a German machine-gun nest and captured 132 other soldiers who had been working machine-gun nests. This feat earned him the Congressional Medal of Honor, the military's highest award.

Decide which words could be used to fill the blanks in the sentences below the puzzle. Then complete the puzzle by writing one letter per blank.

1. _____	D	_____
2. _____	O	_____
3. _____	U	_____
4. _____	G	_____
5. _____	H	_____
6. _____	B	_____
7. _____	O	_____
8. _____	Y	_____
9. _____	S	_____

1. A doughboy was an American foot _____ arrived in France in 1917.
2. The American Expeditionary _____ made of clay.
3. Soldiers were once thought to clean their belts with a _____ Forest.
4. American doughboys proved themselves at _____-Thierry in France.
5. American doughboys also distinguished themselves at _____-Thierry in France.
6. _____ Woods was the site of another important battle.
7. The Congressional Medal of _____ is the military's highest award.
8. Corporal Alvin _____ captured 132 Germans singlehandedly.
9. A selective _____ law helped build the ranks of the United States Army.

The Battle of the Somme

Two battles fought in 1916 are clear examples of the slaughter that took place on the battlefields of France. One was the battle of Verdun. The other was the Battle of the Somme.

To relieve German pressure on Verdun, the British under General Douglas Haig launched an attack along the Somme River in northwest France on July 1. This was the battle in which the tank was introduced by the British. A few months earlier, the Germans had developed another new weapon, the flamethrower, which shot out a stream of fire. The use of the tank and the flamethrower added to the already mounting casualties on the western front.

The British attack accomplished little except to draw some German troops away from Verdun. Even with the help of tanks, the British were unable to break through the German army's lines. By late fall, the attack was over and both sides counted their losses. When combined, British and French casualties totalled 615,000. (In one day alone, the British suffered 60,000 casualties.) German losses were estimated at 650,000. Each side paid a high price and had little to show for it. The Allies had only gained about seven miles.

As is often true in battlefield disasters, the outcome at the Somme cost General Erich von Falkenhayn his job as chief of the German General Staff. He was removed by the German emperor Kaiser Wilhelm II, and replaced by General Paul von Hindenburg.

Fill in the blanks to complete the following statements about the Battle of the Somme.

- The British attack at the Somme was intended to relieve German pressure on _____.
- _____ was the British commander who directed the attack at the Somme.
- The British introduced the _____ as a weapon of war.
- The Germans used a new weapon, the _____, in their attack on Verdun.
- Even though a total of _____ British, French, and German soldiers were killed, the Allies gained only about _____ miles.
- The man who became chief of the German General Staff after General von Falkenhayn was replaced was _____.
- Preceding the attack at the Somme on July 1, 1916, the British bombarded the German trenches for eight days. Some 1,537 British guns fired 1,723,873 rounds without letting up. In round figures, what was the average number of rounds fired each day? _____ What was the average number of rounds fired by each gun during the eight days? _____

Russia Withdraws

In 1917 an event occurred which the Germans hoped would alter the course of the war. Czar Nicholas II of Russia abdicated (resigned) in March. His resignation led to Russia's withdrawal from the war nine months later.

When World War I broke out, Russia honored its obligation to France and joined the fight against the Central Powers. The Russian army fought bravely, but poor leadership, defeats, and desertions undermined the army's morale and determination. In addition, Russia had been plagued for centuries by corruption, poverty, and peasant uprisings, and it was ripe for revolution. Appeals to the czar for permanent reforms were ignored. Consequently, on March 18, 1917, Nicholas II was forced to give up the throne, ending three hundred years of Romanov rule. A democratic provisional (temporary) government under Alexander Kerensky took control of the nation.

Kerensky did his best to keep Russia in the war while implementing democratic reforms. However, the provisional government was out of touch with Russia's peasants and workers, who demanded even more radical changes. On November 7, 1917, Kerensky's government was overthrown and replaced by a government led by Nicolai Lenin. When Lenin came into power, the Bolshevik (Communist) Revolution began. This revolution turned Russia into a dictatorial state.

Lenin soon arranged for an armistice (agreement) with Germany that removed Russia from the war. The armistice became official in March 1918, with the signing of the Treaty of Brest-Litovsk. Russia's withdrawal enabled the Germans to shift more than one million troops from the eastern front to the west for one final offensive maneuver in 1918.

Number the following events to put them in chronological order.

- _____ The Bolsheviks seize power in Russia.
- _____ The Germans transfer one million troops from the eastern front to the west.
- _____ Czar Nicholas II abdicates.
- _____ Russia withdraws from the war.
- _____ A provisional government takes control of Russia.

Explain the significance of the following names.

- Nicholas II _____
- Alexander Kerensky _____
- Nicolai Lenin _____
- Treaty of Brest-Litovsk _____

The Treaty of Versailles

In January 1919 seventy delegates representing the twenty-seven Allied nations met outside of Paris at Versailles to draft peace terms. None of the nations known as the Central Powers were invited. Russia, which had dropped out of the war in 1917 was not invited either. Although each of the Allied nations was represented, all major decisions were made by a group known as the Big Four. This group included President Woodrow Wilson of the United States, Prime Minister David Lloyd George of Great Britain, Premier Georges Clemenceau of France, and Premier Vittorio Orlando of Italy.

From the start of the conference, it was obvious that Prime Minister George, Premier Orlando, and Premier Clemenceau wished to severely punish Germany. Clemenceau was particularly enraged. France had lost fifty percent of its male population between the ages of 20 and 32, and many of its cities, farms, and forests had been destroyed. Clemenceau blamed Germany for this destruction.

The peace agreement drawn up for Germany to sign was called the Treaty of Versailles. Its terms were harsh. According to the treaty, Germany

- was required to give up territory to France and to a newly formed Poland
- was stripped of its overseas colonies in Africa and the Pacific
- was forced to limit its army to a reserve of 100,000 men
- was not allowed to manufacture armaments or have an air force and could only maintain a small navy
- was required to accept responsibility for starting the war. (This clause infuriated the Germans and aided Adolf Hitler in his rise to power fourteen years later.)

Separate treaties were signed by Germany's allies: Austria-Hungary, the Ottoman Empire, and Bulgaria. With the signing of the treaties, World War I officially came to an end.

Match the names of the leaders with their countries.

1. _____ Italy A. Woodrow Wilson
 2. _____ Great Britain B. Georges Clemenceau
 3. _____ France C. Vittorio Orlando
 4. _____ United States D. David Lloyd George
5. Why was Georges Clemenceau particularly determined to punish Germany?
- _____
- _____

6. Were the Allies justified in imposing a very harsh treaty on Germany? Why or why not?
- _____
- _____

Aftermath

World War I was the most destructive war up to its time. After the war, cities, farmland, industries, roads, and bridges throughout Europe lay in ruins. Millions of people were homeless, and disease and starvation were rampant. Discontent over the terms of the Paris peace settlement added to the economic devastation. Most historians agree that World War II grew out of the bitterness left after World War I.

It is estimated that almost 20 million people were killed in World War I. Of this number, 9 million were military personnel and 5 million were civilians. Millions of others died from disease, hunger, and lack of shelter. The war cost the Central Powers and the Allies a total of \$150 billion to \$337 billion. Billions more were later spent to help nations recover from the mass devastation caused by the war.

Territorial realignments led to lingering tensions among the people of Europe. The empires of Germany, Austria-Hungary, Russia, and the Ottoman Empire came to an end, and five new countries appeared on the map of Europe. From the old Austro-Hungarian Empire came Austria, Hungary, and Czechoslovakia. Areas that had once been Austrian and Turkish territory were added to Serbia to form the nation of Yugoslavia. Poland appeared on the map again after having been partitioned among Austria-Hungary, Germany, and Russia since 1795. Finally, the smaller countries of Latvia, Lithuania, and Estonia were free from Russian control and became independent once again.

With so much discontent in Germany and elsewhere, it is not surprising that World War II broke out just twenty years after World War I ended.

Circle the letter of each correct answer.

1. Estimates place the number of military personnel killed in World War I at
 - a. 5 million
 - b. 9 million
 - c. 20 million
2. The cost of World War I may have been as high as
 - a. \$337,000
 - b. \$337,000,000,000
 - c. \$337,000,000
3. Czechoslovakia was created out of what had previously been the empire of
 - a. Austria-Hungary
 - b. the Ottoman Turks
 - c. Russia
4. Territory was added to Serbia to form the new nation of
 - a. Yugoslavia
 - b. Albania
 - c. Hungary
5. Poland was recreated in 1919 after having been divided for years among Austria-Hungary, Germany, and
 - a. France
 - b. Russia
 - c. Serbia
6. After World War I the Baltic countries of Latvia, Lithuania, and Estonia won their independence from
 - a. Austria-Hungary
 - b. Germany
 - c. Russia

The End of WWI (the Great War)

- Russia pulled out of the war in 1917 because of the civil war (_____ Revolution) happening in their own country.
- The US joins the war in 1917 partly because of aggressive acts committed by Germany (i.e. the sinking of the _____). This is important because neither side was making any progress in the war, and it had stalled.
- The US brought in fresh troops and weapons, helping the _____ powers (England and France) gain momentum and win the war.
- Another name for the Triple Alliance (Germany, Italy, Austria-Hungary) was the _____ Powers.

Who won?

- The members of the Triple Entente (aka Allied Powers: England, France, US)—remember, _____ pulls out of the war before it is over.
- US President Woodrow Wilson developed a list of recommendations after the war. They are called the _____
 - The most important of these points was his proposal for the _____ (an international organization to promote world peace).
 - The US refused to join (people had the opportunity to vote in 1919; unfortunately _____ did not gain the right to vote in the US until 1920).
 - This begins a period of _____ for the US.

Treaty of Versailles (_____ Peace Conference of January 1919)

- Countries that participated were the US, England (Great Britain), France, and Italy (_____ was left out on purpose).

Germany was forced to ...

- Reduce the size and power of its _____
- Give up former Emperor Wilhelm to an international court to be tried for _____
- Pay war _____ to France, England, and Russia in the form of money, ships, trains, livestock, and valuable natural resources

What happened to ...

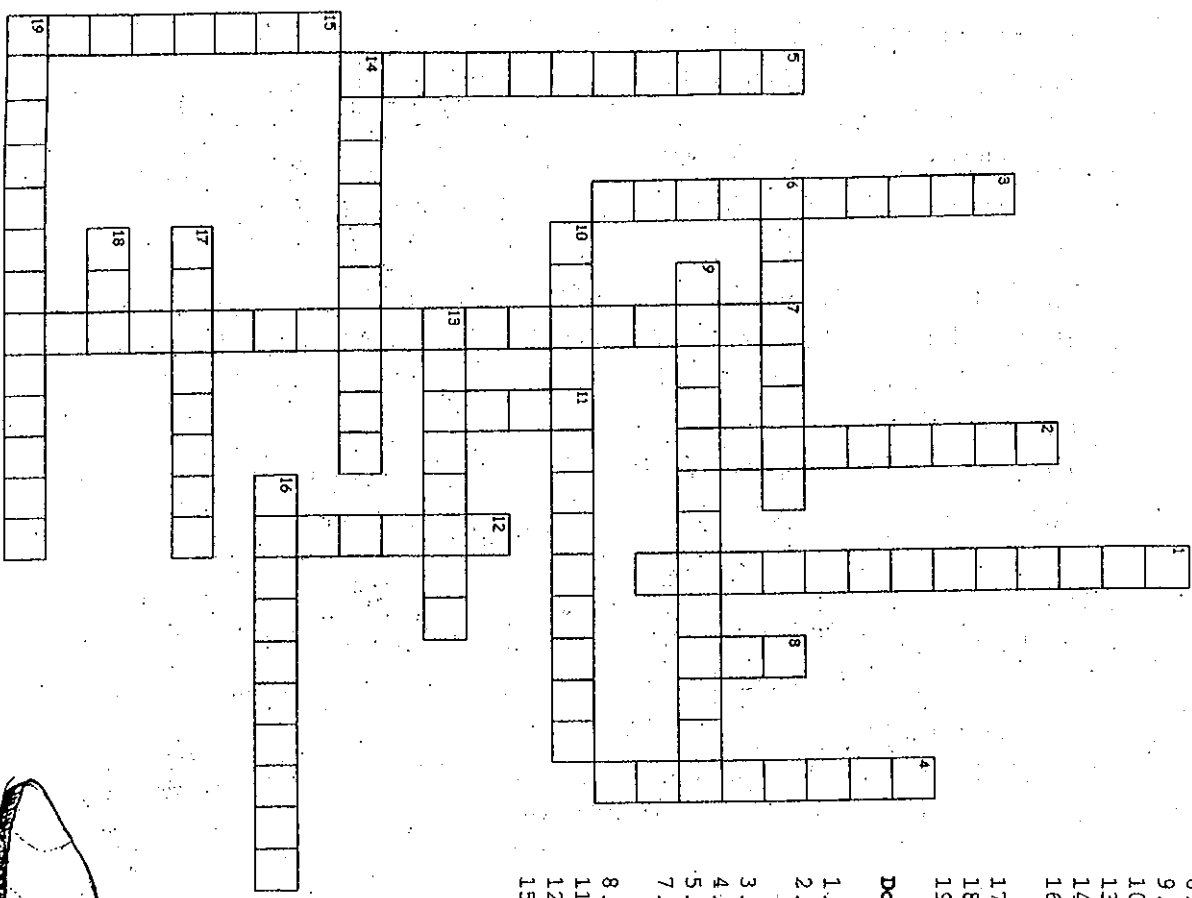
Austria-Hungary

- The empire was _____ (it no longer existed).

NAME: _____

The World at War

Directions: Clues are on the back. You may use your Notes as well.



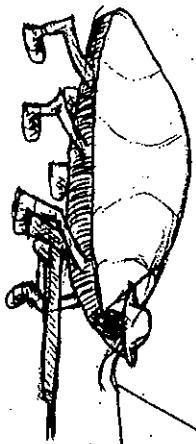
Across

6. German fighter pilot with 81 enemy kills
9. Revolutionary Russian dictator of 1917 followed by Josef Stalin
10. The style of fighting of World War I using No Man's Land
13. German author of Communism
14. Revolutionary gun of that killed many men
16. Use of movies, posters, and media to convince the people to agree to a country's idea
17. Another name for an American soldier
18. The Great War
19. The allies: England, France, Russia, and later America

Down

1. Triple Alliance: Germany, Austria-Hungary, Italy, and Ottoman Empire
2. Bloody battle in which England lost many men by running their men into enemy lines
3. A poison, the scariest weapon of the war
4. Agreement made between countries to protect each other
5. Pride in one's country
7. This Revolution took Russia out of the war in 1917; Russia became the Soviet Union.
8. The name for a pilot who could shoot down many enemy aircraft
11. Another name for 'Russian emperor'
12. 'German emperor,' Wilhelm was his name
15. Duel between aircraft

Clues:



Perhaps I can help. Did you know that when airplane in WWI fought each other that was called a dogfight? The pilots would shoot down many enemy aircraft were called ace. The best of the best was a German named "The Red Baron." He shot down 81 enemy airplanes and blimps! He even flew around in a red airplane, just to show off!

Most of the fighting, though, was done on the ground. Some of the worst fighting was seen at a battle called Gallipoli, where English and Australian soldiers were ordered to charge into nothing but machine gun fire and barbed wire. Normal American infantry soldiers were called "doughboys," because of the color of their uniforms.