

TECHNOLOGY IN THE FIRST WORLD WAR

TECHNOLOGY	ADVANTAGES/DISADVANTAGES	INTERESTING FACTS
Airplanes	<ul style="list-style-type: none"> • more useful by the end of the war • used at the beginning of the war only for reconnaissance (spying, gathering information) • by the middle of the war, pilots brought bricks and dropped them over the side • by the end of the war, they were equipped with machine guns (pilots often shot off their own propellor until the Germans developed a timing device solved that problem) 	<ul style="list-style-type: none"> • a fight between two planes was called a “dog fight” • an ace was a pilot that shot down five or more planes • Canada’s greatest flying ace was Billy Bishop who shot down 72 planes (he was from Owen Sound, Ontario) • Germany’s greatest flying ace was Manfred von Richthofen (The Red Baron), who shot down over 80 planes • The Red Baron was eventually shot down by a Canadian, named Roy Brown
Artillery (bombs, shells)	<ul style="list-style-type: none"> • caused a lot of destruction • fast • good to launch into enemy trench with no risk to self 	<ul style="list-style-type: none"> • the 106 fuse exploded on contact with barbed wire, which helped clear paths through no man’s land • the grenade was only useful when they were close enough to the enemy to throw it into their trenches
Cavalry (soldiers on horseback)	<ul style="list-style-type: none"> • useless • horses could not function in the mud/trenches 	<ul style="list-style-type: none"> • the German trench system was so sophisticated that they even had stables to house their horses properly • there were also bunks for the soldiers and small stores
Chlorine Gas	<ul style="list-style-type: none"> • deadly • BUT, dependent on wind direction - if the wind shifted and blew in the opposite direction, it was easy to kill your own soldiers 	<ul style="list-style-type: none"> • used first by the Germans on April 22, 1915 at the Battle of Ypres • burns the eyes and lungs • before gas masks were developed and issued during WW1, soldiers could protect themselves by urinating on a cloth and covering their faces
Dreadnought (warship)	<ul style="list-style-type: none"> • useful for bringing supplies • easy target for U-boats (submarines) 	<ul style="list-style-type: none"> • usually travelled in convoys, groups of ships • the dreadnoughts were often surrounded by other battleships for protection
Flame Thrower	<ul style="list-style-type: none"> • only projected a few metres, so practically useless in trench warfare • only time it was useful was when one group attacked the enemy’s trenches 	<ul style="list-style-type: none"> • first used by the Germans
Machine Gun	<ul style="list-style-type: none"> • most important weapon in trench warfare • fast, easy to reload, fired at long range 	<ul style="list-style-type: none"> • fired hundreds of rounds of ammunition without stopping • they were too heavy to pick up and carry, so they were placed on stands

Tank	<ul style="list-style-type: none"> • useless at the start because they would often get stuck in the mud • well developed by the end of the war 	<ul style="list-style-type: none"> • first used by the British at the Battle of Somme, scaring the German soldiers who had not yet seen a tank
Repeating Rifle	<ul style="list-style-type: none"> • good • shot long distances very hard to re-load in the trenches due to the mud, which would cause the rifle to jam 	<ul style="list-style-type: none"> • Canadian soldiers first used the Ross Rifle, which was excellent for sharp shooting, but jammed easily with mud and became useless in the trenches they began taking the Lee Enfield Rifle from the British soldiers because it did not jam as easily, eventually the Lee Enfield replaced the Ross
Submarine (Unterseeboot on)	<ul style="list-style-type: none"> • destroyed supply ships crossing the Atlantic • very effective 	<ul style="list-style-type: none"> •

WAR IN THE AIR

The airplane was introduced to the war as a technologically advanced spy. It flew reconnaissance missions, not even carrying a gun on board (it wasn't until later that pilots began bringing pistols, rifles, and light machine-guns on board. It was still later that planes were actually equipped with weapons—the German Fokker had a built in machine gun that did not disturb the propeller rotation). Nonetheless, it was attractive. Pilots lived in luxury compared to their muddy lice-ridden companions in the trenches. Moreover, they did not die the impersonal and anonymous deaths of the foot soldier—their names and accomplishments were publicized and glorified. However, the average life span for WW1 pilots was only two weeks.

WAR ON THE SEA

In 1914 Canada's **tin pot** navy consisted of two ships, but by 1918 it had 112 war vessels. Canada's shipyards also made a great contribution to the war at sea by producing more than 60 antisubmarine ships and over 500 antisubmarine motor launches. These, of course, were to combat the dreaded German U-boats (unterseebooten). Everybody knew that Britain still ruled the seas so **U-boats** became key in German strategy. By winning the war at sea, Germany hoped to starve Britain into submission by cutting all imports from this island nation. German and British naval forces actually only met in one major battle—the **Battle of Jutland**. Britain fared horribly, losing 6000 soldiers, though the fleet remained large enough to defend the British Isles. As a result, the German navy returned to port and never sailed out again. British naval blockades against Germany continued, successfully, until the nation was almost completely devoid of supplies. In retaliation, Wilhelm ordered a policy of "unrestricted submarine warfare."

One of the most important casualties of Wilhelm's "unrestricted submarine warfare" was the Lusitania. The Lusitania sank on May 7, 1917. It was just approaching Ireland when a torpedo that had been shot from a German U-boat struck it. It took only 18 minutes for the Lusitania to sink. Of the 1916 people on board, 1198 were killed. Those killed included passengers and crew members that were on the ship (it was not a warship). The dead passengers included many Canadians and 115 neutral American citizens. The sinking of the Lusitania pushed the United States to finally enter the First World War by declaring war against Germany.

REINFORCEMENT AND EXTENSIONS OF CONCEPTS LEARNED

1. Write an explanation of why YOU think the sinking of the Lusitania made the Americans want to fight in the war.
2. Outline the events of the Halifax Explosion