Steel, Speed, and Strategy: A World War II Technology Lesson Plan

-created by Aaron Makelky, Wyoming History Teacher, in collaboration with the National Museum of Military Vehicles July 2025

A. Introduction and Rationale

This lesson, "Steel, Speed, and Strategy," is designed to move your history students beyond a superficial understanding of World War II's famous machines. It is built on the premise that technology is not just a collection of artifacts but a driving force that shapes strategy, dictates tactics, and profoundly impacts the human experience of conflict. World War II, more than any previous war, was a contest of industrial might, scientific innovation, and rapid tactical adaptation.

This lesson plan features an interactive "gallery walk." This student-centered approach turns students into historical detectives. They will be tasked with analyzing primary source accounts: the voices of the soldiers, sailors, and airmen who operated or faced these technologies, then matching them to detailed informational placards. In doing so, they will not just learn *what* a B-17 was, but they will begin to understand the freezing, terrifying reality of flying a mission inside one.

The goal is to foster critical thinking and historical empathy. By evaluating and synthesizing the evidence, students will connect the tangible object (the weapon) to the intangible experience (the human cost) and the abstract concept (the strategic impact). They will be challenged to evaluate which technological advancements were truly decisive and to explain their reasoning in a culminating analytical exercise.

B. Wyoming State Standards

SS12.3.2: Students analyze and evaluate the impact of technology on the production, distribution, and consumption of goods and services.

SS12.4.1: Students analyze and evaluate the impact of people, events, ideas, and symbols on history.

SS12.4.2: Students analyze and evaluate cause and effect relationships and multiple causation.

SS12.4.4: Students analyze and evaluate historical events and issues from the perspective of people living at the time.

C. Learning Objectives

Upon completion of this lesson, students will be able to (SWBAT):

- Analyze primary source documents to identify key characteristics of WWII technology from the perspective of those who experienced it.
- Evaluate the tactical and strategic impact of ten key weapons and vehicles on the conduct of World War II.
- Synthesize information from visual (diagrams), textual (placards), and primary source evidence to construct a compelling, evidence-based argument about the influence of a specific technology on the war's outcome.

D. Materials Required

- Ten (10) Weapon/Vehicle Information Placards (printed)
- Ten (10) Primary Source Excerpt Slips (printed and cut) per 3-5 students
- Student Handout: "Weapons of WWII Analysis Chart" (one per student or small group)
- Tape, easels, or magnets for posting placards around the classroom
- Projector/Smartboard for introduction and debrief (optional)

E. Step-by-Step Lesson Procedure

1. **Setup** (10 minutes): Before the start of class, post the ten Weapon/Vehicle Information Placards around the classroom. Create distinct "stations" to encourage movement and prevent crowding. Each station should have enough space for a few students to read comfortably. Do not number the weapon placards to challenge students to match the sources to the placards. Changing the sequence of placards will also make the learning task more challenging and fun for students. Placards are organized in this lesson to make it clear which source matches which weapon (A->1; B->2; etc.) but we do not want students to know this.
2. **Introduction/Hook (5 minutes)**: As students enter, have a "bellringer" question projected or written on the board: *"Which is more valuable in war: the best weapons,*

the smartest strategy, or the most productive factories?"

- Facilitate a brief (2-3 minute) whole-class discussion of their initial responses. Guide them toward the idea that all three are important, but that WWII saw an unprecedented link between industrial production and military success.
- Introduce the day's activity: "Today, you are going to become historical analysts. You'll investigate the tools of war: the machines that defined the battlefields of World War II and connect them to the experiences of the people who used them."

3. **The Gallery Walk** (25-30 minutes):
   - Distribute the "Weapons of WWII Analysis Chart" to each student (or small group, depending on your preference).
   - Distribute one set of Primary Source Excerpt slips to each student/group. Ensure all ten sources are distributed.
   - Explain the two-part task:
     - Part 1 - The Mystery: "Your first task is to be a detective. Read your primary source excerpt. This is a firsthand account of someone in the war, but the name of the weapon they are describing has been removed. Your job is to figure out what it is."
     - Part 2 - The Analysis: "Circulate around the room, reading the information placards at each station. As you investigate, your mission is to find the placard that matches the description in your source. When you find it, write your source number in the chart. After matching the description to the placard, come up with three adjectives (descriptive words) that match the weapon or vehicle and hypothesize how it might change the battlefield. If you are stuck on a source, you can move on to a new one and use the process of elimination to remove weapons and narrow your choices."
4. **Group Discussion & Debrief** (15-20 minutes):
   - Use the following guiding questions to facilitate a deeper, whole-class discussion as you review the answers:
     - "Looking at the Rocket Launcher and the Strategic Bomber, which of these technologies seems to have had the biggest *psychological* impact on soldiers and civilians? What evidence supports your claim?"
     - "Consider the Tank Destroyer and the handheld Anti-Tank Weapon. How do these two technologies show an 'arms race' between offense (tanks) and defense (anti-tank weapons)?"
     - "The placard for the M4 Sherman tank emphasizes reliability and numbers, while mentioning it was outmatched by German Tiger tanks, which were

known for their power and thick armor. What might this difference tell us about the broader war strategies of the United States versus Germany?"
    - "The Aircraft Carrier and the Amphibious Landing Craft both relate to projecting power from the sea. How did these two technologies work together to make the Allied victory in the Pacific possible?"
    - An optional formative assessment is hosted at this link and includes 1 question from each weapon placard to ensure student comprehension.
5. **Assessment & Synthesis** (Homework/Extension): For homework or as a concluding in-class writing task, students can use their completed charts and the insights from the class discussion to answer the concluding analytical question on their handout. This serves as the formal assessment for the lesson.

E. Differentiation and Scaffolding

- For Support:
    - Strategic Grouping: Pair students with varying reading levels for the gallery walk activity.
    - Word Bank: Provide a small word bank on the student handout with key terms that appear in the sources (e.g., *periscope, ramp, propeller, turret, caterpillar tracks, flak, salvo*) to help students focus their search for clues.
    - Pre-matching: For students who need significant support, you can pre-fill one or two of the more obvious matches on their chart (e.g., matching the "no propeller" source with the Jet Aircraft).
- For Challenge:
    - Advanced Questioning: During the debrief, ask advanced students to compare two related technologies (e.g., Tank Destroyer vs. Self-Propelled Artillery) and the military doctrines behind them.
    - Extension Activity: Challenge students to find an additional primary source account online for one of the ten weapons. They can write a brief analysis of how this new source corroborates or complicates the information from the lesson.
    - Comparative Analysis: Ask students to write a short essay comparing the technological impact of one of these WWII weapons with a modern military equivalent (e.g., Strategic Bomber vs. Drone, Submarine vs. Nuclear Submarine)

F. Teacher Answer Key

Primary Source Excerpt #	Correct Weapon / Vehicle
A	Jet Aircraft
B	Strategic Bomber
C	Tank
D	Submarine
E	Amphibious Landing Craft
F	Tank Destroyer
G	Self-Propelled Artillery
H	Aircraft Carrier
I	Rocket Launcher
J	Man-Portable Anti-Tank Weapon

Part II: Weapon/Vehicle Information Placards

Jet Aircraft

By U.S. Air Force - www.nationalmuseum.af.mil (direct link), Public Domain, https://commons.wikimedia.org/w/index.php?curid=17886955

Description:

- Role: The Messerschmitt Me 262 was the world's first operational jet-powered fighter aircraft. Its primary mission was to be a high-speed interceptor, designed to attack and destroy the massive Allied bomber formations that were devastating German cities.
- Key Features: The Me 262's revolutionary advantage was its two Junkers Jumo 004 jet engines, which propelled it to speeds approaching 540 mph—nearly 150 mph faster than the top Allied propeller-driven fighters like the P-51 Mustang. This incredible speed made it nearly impossible to catch. Its armament was equally formidable, typically consisting of four 30mm cannons in the nose, a concentration of firepower that could tear a heavy bomber apart with a short burst. Some were even equipped with air-to-air rockets.
- Impact: The appearance of this aircraft in 1944 was a profound shock to Allied air crews, who suddenly faced an enemy they could not outrun. However, the Me 262 was a weapon that was "too little, too late." Plagued by unreliable engines that required frequent overhauls and vulnerable to attack during its long takeoff and landing runs, it could not be produced in sufficient numbers to alter the strategic balance of the air war. While its direct impact was limited, the Me-262 marked a point of no return, heralding the end of the propeller era and the dawn of jet era, military aviation.

Strategic Bomber

https://history.delaware.gov/wp-content/uploads/sites/179/2019/04/b17-2.jpg

Description:

- Role: The B-17 was a four-engine heavy bomber designed for a single, grueling purpose: to fly long distances, deep into enemy territory in broad daylight, and conduct precision bombing raids on strategic targets like factories, oil refineries, and military bases.
- Key Features: It earned the nickname "Flying Fortress" for its staggering defensive armament of up to thirteen .50-caliber machine guns, intended to allow formations of B-17s to defend themselves. It was renowned for its rugged construction and ability to absorb astonishing amounts of damage from enemy fighters and anti-aircraft

fire (flak) and still bring its crew home. The crew of ten men each had a specific, vital role, operating in brutally cold, unpressurized conditions at high altitudes.

- Impact: The B-17 was the workhorse of the U.S. Eighth Air Force's daylight bombing campaign over Europe. This strategy of strategic bombing aimed to cripple Germany's ability to wage war from the inside out. While the ultimate effectiveness of this campaign is still debated by historians, it undeniably forced the German Air Force (Luftwaffe) onto the defensive, compelling it to pull vital fighter resources away from the Eastern Front to defend the homeland. This contribution came at a terrible price; bomber crews suffered some of the highest casualty rates of any branch in the American military, with a crewman's chance of completing a full tour of missions in 1943 being only about 25%

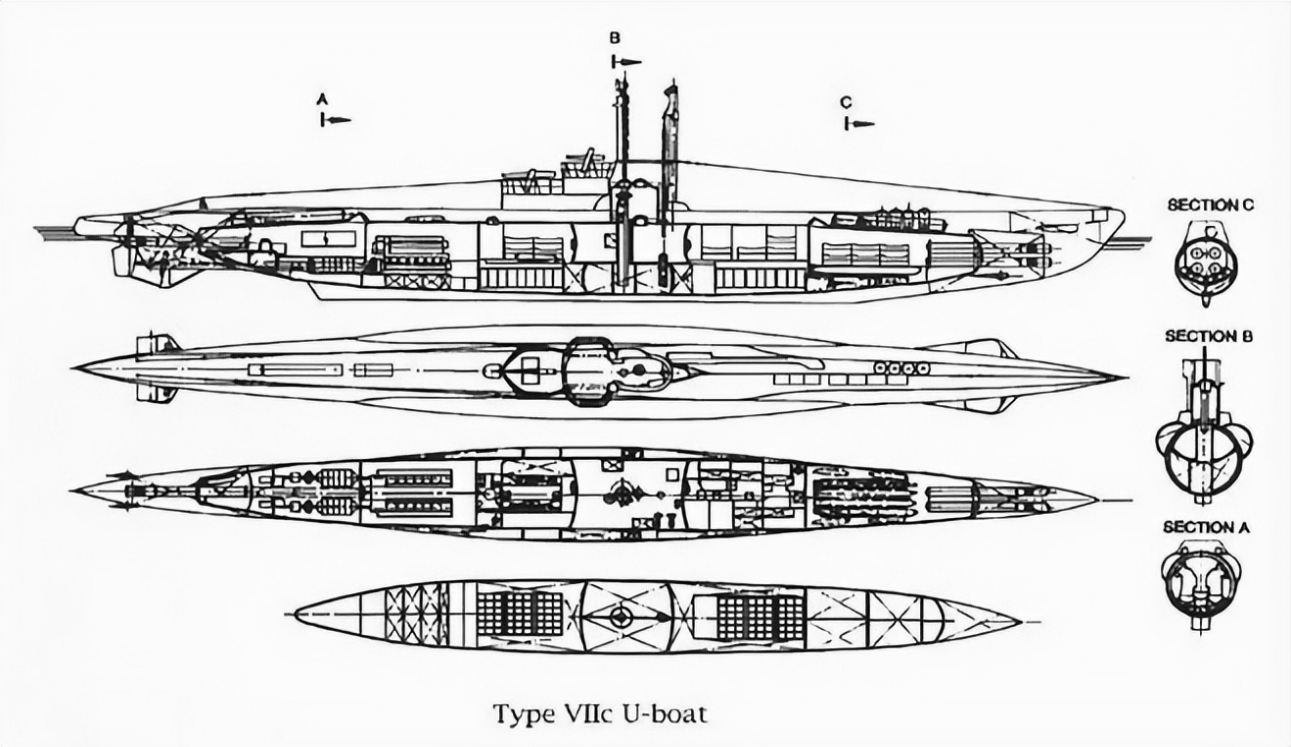
Tank

By Joost J. Bakker - M4 Sherman tank, CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=17741504

Description:

- Role: The M4 Sherman was the main battle tank for the United States and many of its Allies. It was a versatile medium tank, designed to be a reliable, mass-produced "jack-of-all-trades" capable of supporting infantry and engaging enemy armor.
- Key Features: The Sherman's greatest strengths were not its individual power, but its mechanical reliability and ease of mass production and repair. Its 75mm gun was adequate against most German tanks early in the war, but it was significantly outmatched by the superior firepower and armor of the later German Panther and Tiger heavy tanks. A Soviet commander who used Sherman's noted that its tall profile made it prone to tipping over but also praised its crew survivability and well-appointed interior compared to the Soviet T-34.
- Impact: The Sherman tank embodies the American war strategy: victory through overwhelming industrial might. While a single German Tiger tank was superior to a single Sherman, the Germans could not produce, transport, and maintain their complex machines at nearly the rate the U.S. could churn out Shermans. The Allies could put five Shermans in the field for every one Tiger, and they could be repaired far more easily. This numerical superiority, combined with effective crew training and combined-arms tactics, allowed Allied armored divisions to overwhelm their technologically superior but less numerous German counterparts.

Submarine



By NSA - http://www.ibiblio.org/hyperwar/ETO/Ultra/SRH-009/SRH009-5.html, Public Domain, https://commons.wikimedia.org/w/index.php?curid=8496396

Description:

- Role: The German “Unterseeboot”, or U-boat, was a submersible naval vessel designed for a campaign of commerce raiding. Its primary mission during the Battle of the Atlantic was to sink the Allied merchant ships carrying vital food, fuel, and war materials to Great Britain and the allied nations.
- Key Features: Type VII was the workhorse of the U-boat fleet, a medium-range attack submarine armed with five torpedo tubes and a deck gun. U-boats often operated in coordinated groups known as "wolf packs," which would stalk and attack Allied convoys at night. Life aboard was incredibly cramped, foul-smelling, and stressful, with a crew of around 44 men living in close quarters for months at a time.
- Impact: The U-boat campaign nearly won the war for Germany. By 1942, they were sinking Allied ships faster than they could be built, threatening to starve Britain into submission. The Battle of the Atlantic was the longest and one of the most critical campaigns of the entire war. Ultimately, the Allies turned the tide with technological innovations—including improved sonar (ASDIC), long-range patrol bombers, escort aircraft carriers, and the critical breaking of German naval codes—making the Atlantic a graveyard for many U-boat crews by 1943.

Amphibious Landing Craft

By US Navy - Official US Navy photo taken from http://www.navsource.org/archives/10/03/100315901.jpg / uploaded from English Wikipedia, Public Domain, https://commons.wikimedia.org/w/index.php?curid=6498028

Description:

- Role: The LCVP was a shallow-draft boat designed to do one thing: carry about 36 combat-ready infantrymen or a small vehicle like a Jeep from large transport ships offshore directly onto a hostile beach.
- Key Features: Designed by New Orleans boatbuilder Andrew Jackson Higgins, the craft's revolutionary feature was its steel bow ramp. This allowed soldiers to charge forward onto the beach, providing some cover, rather than having to jump over the high sides, which exposed them to enemy fire. Built of plywood to conserve steel, it was cheap and easy to mass-produce, with over 20,000 built during the conflict.
- Impact: The Higgins Boat fundamentally changed modern warfare. Before its invention, the only way to launch a

seaborne invasion was to capture a heavily defended port city. The LCVP allowed the Allies to land entire armies across open, undefended (or less-defended) beaches, vastly increasing their strategic options. This capability was the cornerstone of every major Allied amphibious invasion, from North Africa and Sicily to the D-Day landings in Normandy and the brutal island-hopping campaign across the Pacific. Supreme Allied Commander Dwight D. Eisenhower stated, "Higgins is the man who won the war for us."

Tank Destroyer

Public Domain, https://commons.wikimedia.org/w/index.php?curid=667659

Description:

- Role: The tank destroyer was a specialized armored fighting vehicle developed under a unique American military doctrine. Its sole purpose was to actively hunt and destroy enemy tanks, employing a "seek, strike, and destroy" strategy.
- Key Features: The M18 Hellcat was the epitome of this doctrine. It was the fastest tracked armored vehicle of the war, capable of reaching speeds over 55 mph. This incredible speed was achieved by intentionally sacrificing armor; its hull was only about a half-inch thick, vulnerable to almost any German anti-tank weapon. It mounted a powerful, high-velocity 76mm gun in an open-topped turret, which saved weight but exposed the crew to shrapnel and small arms fire.
- Impact: The tank destroyer was not meant to fight like a tank. Instead of slugging it out in head-to-head combat, Hellcat crews used their speed to race to ambush positions, hitting the weaker side and rear armor of slower, more heavily armored German Panther and Tiger tanks before quickly relocating. While its gun struggled against the thick frontal armor of heavy German tanks, its crews developed effective tactics and, by war's end, the M18 Hellcat had achieved the highest kill-to-loss ratio of any American tank or tank destroyer in the war.

Self-Propelled Artillery

By Jean-Pol GRANDMONT - Own work, CC BY 3.0, https://commons.wikimedia.org/w/index.php?curid=9403154

Description:

- Role: A self-propelled gun (SPG) is essentially a piece of field artillery mounted on a tracked, armored chassis. The M7 Priest's mission was to provide mobile, indirect fire support to rapidly advancing armored and infantry units.
- Key Features: The Priest combined the firepower of the standard U.S. Army 105mm howitzer with the mobility of the M4 Sherman tank chassis. This meant it could keep tanks over rough terrain, something towed artillery pieces could not do. Its open-topped design saved weight and allowed for faster firing and ammunition handling but left the six-man crew highly vulnerable to air bursts and counter-battery fire.
- Impact: The M7 Priest and similar SPGs were a crucial element of combined-arms warfare. In fast-moving offensives, like the breakout from the Normandy beaches or the desperate fighting during the Battle of the Bulge, SPGs ensured that powerful artillery support was always immediately available to blast enemy strongpoints, break up counterattacks, and protect advancing troops. It solved the critical problem of artillery being left behind by fast-moving mechanized forces.

Aircraft Carrier

By Unknown author - U.S. Navy Naval History and Heritage Command Center photo 80-G-K-14379, Public Domain, https://commons.wikimedia.org/w/index.php?curid=1657577

Description:

- Role: An aircraft carrier is a warship that serves as a seagoing airbase. In World War II, it became the new capital ship, replacing the battleship as the most powerful and important vessel in the navy. Its role was to project air power across vast oceans, far beyond the range of land-based aircraft.
- Key Features: The 24 ships of the Essex class were the heart of the U.S. Navy's Fast Carrier Task Force in the Pacific. These massive ships were over 870 feet long and could carry a complement of nearly 100 fighter, dive-bomber, and torpedo planes. With a crew of over 3,000 men, they were floating cities dedicated to war, protected by their own aircraft and a formidable array of anti-aircraft guns.
- Impact: The aircraft carrier revolutionized naval warfare. Decisive battles like the Coral Sea (May 1942) and Midway (June 1942) were fought entirely by carrier-launched aircraft; the opposing surface fleets never even saw each other. In the vast Pacific Ocean, carriers were the key to victory. They provided the air cover for amphibious invasions, destroyed the Japanese fleet, and enabled the "island-hopping" strategy that brought Allied forces to Japan's doorstep.

Rocket Launcher

By RIA Novosti archive, image #303890 / Zelma / CC-BY-SA 3.0, CC BY-SA 3.0,

https://commons.wikimedia.org/w/index.php?curid=15579452

Description:

- Role: Rocket launchers were area saturation weapons, designed not for precision, but to blanket a large target area with a massive volume of high-explosive or incendiary rockets in a very short period.
- Key Features: These weapons were relatively simple and cheap to produce. The Soviet Katyusha mounted its launch rails on the back of trucks, making it highly mobile and able to quickly fire and relocate to avoid counter-fire. Known for the terrifying sound they made and appearance of its launch rails, German troops called the Katyusha "Stalin's Organ".
- Impact: The primary impact of these weapons was psychological. The deafening, shrieking howl of a massive rocket salvo, followed by a cataclysmic barrage that could obliterate trenches and shatter infantry formations, was a terrifying experience that could break an enemy's will to fight. They were weapons of shock and terror, used extensively on the Eastern Front to disrupt enemy attacks and support massive Soviet offensives.

Man Portable Anti-Tank Weapons

By Ranger Steve - Own work, CC BY 3.0, https://commons.wikimedia.org/w/index.php?curid=7504980

Description:

- Role: These were man-portable weapons designed to give an individual infantry soldier the power to destroy a multi-ton, armored tank, a task previously reserved for other tanks or large, heavy anti-tank guns.
- Key Features: All three of these iconic weapons utilized a shaped-charge (or hollow-charge) warhead. This type of explosive focuses its energy into a jet of molten metal capable of piercing thick steel armor.
    - The American Bazooka was a reloadable rocket launcher requiring a two-man crew.
    - The British PIAT (Projector, Infantry, Anti-Tank) used a powerful spring and a small cartridge to launch its bomb. It had no backblast, making it ideal for firing from inside buildings.
    - The German Panzerfaust ("Tank Fist") was a cheap, simple, and disposable recoilless gun issued in huge numbers to soldiers for close-range defense.
- Impact: These weapons "democratized" anti-tank warfare. They empowered the individual soldier, turning any infantry squad into a lethal threat to enemy armor. This drastically changed battlefield tactics, especially in the close quarters fighting of Normandy's hedgerows and the ruined cities of Europe, where a single soldier hiding in a window could ambush and destroy a $30,000 tank.

Part III: Primary Source Excerpts

Source A

Source: Adapted from the after-action report of a U.S. B-17 crewman, 1st Lt. Donald J. Jensen, 8th Mar 1945.

"It was a beautiful day! Clear, frigid and not a cloud in sight. There was only one P-51 in sight and it was far away, unusual for an escort aircraft. Behind us the 8th Air Force bomber stream stretched for miles.

As we watched, our lone P-51 evolved into an aircraft unlike anything we had ever seen. No propeller!

As we watched it made a tight high-speed circle, coming in from behind our little formation of three bombers. It became evident that we were to have a new and unpleasant experience. The pilots of the three aircraft... pulled in close together to give us maximum firepower, wingtips only a few feet apart.

Our gunners were fooled by the speed of the aircraft, and despite our massed firepower, we did no apparent damage. The **** flew through our already tight formation so close that we could see the pilot, the rivets in the aircraft skin and the 20mm cannon firing.

The wing of our lead aircraft was cut free from the rest of the aircraft almost as if by a giant chain saw, and the aircraft began its lethal tumble to earth. We saw no parachutes.."

Source B

Source: Adapted from the speech J. Marvin Turner made fifty-two times during the sixth War Bonds Drive between November third and December twenty-second, 1944. It was heard by 5978 people.

“As we were going straight down on a bomb run, I could see the shells bursting directly in front of us and knew that we were going to get hit. The first burst hit our number four engine. That's the outpouring and in the right wing. The oil began to pour out and it began to run wild — with the power going about three times as fast as it should. Thus causing a terrific vibration in the plane. Ordinarily we could shut it off... but the mechanism was shot away and there was nothing that we could do but let it run wild.

A second later, another burst hit the number three engine. That's the one on the, the other one on the right wing. And the same thing happened to it. The vibration the two flaps set up was so terrific that a piece of armor plate lying [in a piece?] on the radio room floor, weighed about thirty-five or forty pounds, [got up?] and came four to six inches off the floor. Another burst of it hit the Plexiglas hose and cut it completely off the bottom of the [?] with the navigator riding in the nose who never even got a scratch. However, there was a colonel riding there also, just to see what combat was like. A piece of that shell burst right through his left foot, taking three toes with it, so he found out what combat was like in a hurry.”

Source C

Source: Adapted from an interview with Dmitriy Loza, a Soviet commander who used American-supplied equipment.

> "The vehicle had its weaknesses, the greatest of which was its high center of gravity. It frequently tipped over on its side, like a Matryoshka doll. But I am alive today thanks to this deficiency. We were fighting in Hungary in December 1944. I was leading the battalion and on a turn my driver-mechanic clipped a curb. My vehicle went over on its side. We were thrown around, of course, but we survived. Meanwhile the other four of my vehicles went ahead and drove into an ambush. They were all destroyed."

Source D

Source: Adapted from diary of Gottfried Fischer, German naval officer

> "It is fourteen days today that we departed from the base. Throughout the entire period we have seen neither the sky nor the sun. The days go by slowly. We have finally crossed the dangerous area of maximum air threat - the Bay of Biscay. Hence was our transit: we hardly had time to breathe some fresh air and charge our batteries, and down below we went again. For the past 3 days we have been experiencing rough seas, sea state 3-6, high swell and wind. The crockery is flying all around the inside of the boat…"

Source E

Source: Adapted from the oral history of Marvin Perrett, a U.S. Coast Guard coxswain on D-Day.

"At 2:30 in the morning on D-Day, we received the call to weigh our boats, which meant it was time to put the landing craft into the water… Once in the water, 36 assault troops boarded my boat and we started circling the waters with about 10 to 12 other boats in complete darkness.

After some time had passed… I looked around and found all 36 men were looking straight at me, staring me down. I asked them what was wrong, and a gentleman spoke up and stated that in a training scenario the day before, the coxswain dropped them off in about four feet of water. They didn't want the same thing to happen now that they were in combat. After looking at his machine gun, I assured him that I would do my best to see that it didn't happen again.

…I looked at this Army lieutenant who looked as white as a sheet. After realizing that we had been sucking up diesel fumes and circling for several hours, it dawned on me that he was seasick. Not knowing windward from leeward, he went off to the side of the boat to do his business, but the wind caught it and put it all on my face. I was wearing it all—bacon, eggs, coffee, milk, you name it, I was wearing it."

Source F

Source: Adapted from an interview with Robert William Tooke, a British NCO in the 86th Anti-Tank Regt., Royal Artillery.

> "Our first action with the vehicle was at Maltot and Hill 112, where we faced the threat of mortar fire. We entered Caen after the Allied bombing... My job was to engage enemy armor. We had to be fast. Our vehicle had an open top, which made us vulnerable, but it was quick enough to get into position, fire on the flanks of the German tanks, and then get out. In September 1944, my own vehicle was disabled when it hit a mine."

Source G

Source: Adapted from the battlefield account of Vasiliy Krysov, a Soviet officer fighting against German armor in the Battle of Kursk, 7th July, 1943

> “The range to the Nazi tanks was still distant, so the crews of the 129th Tank Brigades light tanks were not shooting yet. Our guns stood silent too, but the gunlayers... kept the leading enemy vehicles centered squarely in their gunsights. The tension was rising with every minute. We could clearly discern in the rays of the morning sun the rectangular hulls and vertical armor plates of the Tigers among the various enemy tanks, and their characteristic brown-yellow camouflage. A turret-less monster with an equally large gun kitted with a muzzle brake was moving towards our platoon, and we understood that it must be a Ferdinand. I broke into a cold sweat – just what I’d feared was happening! How to cope with it?! What to do?! I had no time to reflect – the order to fire was just about to ring out!”

Source H

Source: Adapted from the official Action Report of the USS Enterprise during the Battle of

Midway, June 4, 1942.

> "0906. Commenced launching attack group of 33 scout bombers, 14 torpedo planes, 10 fighters…
>
> 1202. Our Air Group sighted the Japanese Force composed of 4 of their large naval vessels, 2 battleships, 4 cruisers, 6 destroyers…
>
> 1220. Our torpedo planes commenced attack…
>
> 1222. Our dive bombers commenced their attack, severely damaging two of their vessels with many direct bomb hits, leaving them in flames…
>
> 1405. 20 enemy planes reported bearing 310° and approaching, followed by an attack on the *Yorktown*… heavy smoke seen."

Source I

Source: Adapted from Soviet commander Aleksandr Ilyich Eremenko's book *At the Beginning of The War*

"… From the Stavka a telephonogram was received with the following content: " It is supposed to be widely used in the fight against the fascists "eresas" and therefore try them out in battle. You are allocated one M-8 division. Test it and report your conclusion …

We tested new weapons near Rudny … On 15 of July 1941 in the afternoon, the unusual roar of jet mines shook the air. Like red-tailed comets, mines darted upwards. Frequent and powerful interruptions struck the ear and eyesight with a strong roar and a dazzling brilliance … The effect of simultaneous rupture of 320 mines for 10 seconds exceeded all expectations …"

Source J

Source: Adapted from an account of British paratrooper Martin Charles "Wagger" Thornton on D-Day.

"The more this bloody tank kept coming, the more shaken I was getting. Anyhow I waited and I thought to myself, 'Well this is it', because it was dark as well, and I let go. Lucky for me, it hit the thing smack in the middle."

Part IV: Student Handout

Name: _____ Date: _____ Class: _____

Weapons of World War II: Analysis Chart

Instructions:

1. Read your assigned primary source excerpt carefully. Note the key descriptions of the weapon/vehicle and the experience of using or facing it.
2. Circulate the room and read the ten Information Placards.
3. Based on the evidence, determine which placard matches your primary source. Write your source number in the corresponding box on the chart below.
4. As you conduct your gallery walk, choose at least four other weapons/vehicles and complete the chart for them.
5. After our class discussion, use your completed chart and notes to answer the concluding question at the bottom of the page.

Weapon / Vehicle	Source #	Three Adjectives to Describe the Weapon/Vehicle	How did this weapon change the battlefield?
Amphibious Landing Craft			
Self-Propelled Artillery			
Aircraft Carrier			
Submarine			
Jet Aircraft			
Rocket Launcher			
Portable Anti-Tank Weapon			

Tank			
Tank Destroyer			
Strategic Bomber			

Concluding Analysis

Directions: Based on your analysis of the placards, primary sources, and our class discussion, which single weapon or vehicle do you believe had the greatest overall impact on the way World War II was fought and on its final outcome? Justify your choice in a well-developed paragraph (5-7 sentences), using specific evidence from at least two different information placards and one primary source to support your argument.

Primary Source Excerpt Sources:

1. https://100thbg.com/first-encounter-with-the-me-262/
2. https://www.ncpedia.org/anchor/primary-source-story-b-17
3. . https://iremember.ru/en/memoirs/tankers/dmitriy-loza/
4. https://www.paperlessarchives.com/wwii_german_u-boat_docs.html
5. https://www.history.uscg.mil/Research/THE-LONG-BLUE-LINE/Article/3189101/the-long-blue-line-the-life-and-times-of-marvin-perrettportrait-of-a-world-war/
6. https://www.iwm.org.uk/collections/item/object/80017853
7. Krysov, Vasiliy. *Panzer Destroyer: Memoirs of a Red Army Tank Commander*. Translated by Vladimir Kroupnik. Barnsley, UK: Pen & Sword Military, 2010, 44.
8. https://www.history.navy.mil/research/archives/digital-exhibits-highlights/action-reports/wwii-battle-of-midway/uss-enterprise-action-report.html
9. https://en.topwar.ru/32026-katyusha-god-1941-y.html
10. https://www.bbc.com/culture/article/20240531-how-ww2s-d-day-began-with-a-death-defying-mission-in-a-wooden-aircraft

Planning a Visit to the NMMV

Although the lessons in this series can be implemented in the classroom without time-consuming or difficult preparation, they are also designed to be taught along with a visit to the National Museum of Military Vehicles, specifically the Unknown Soldiers' Weapons Vault and the Marshall Gallery.

1. Exploration of the Unknown Soldiers' Weapons Vault. Paying attention to the evolution of the weapons on display.
2. In the "Rotunda of American Combat Vehicles," pay special attention to the weapon systems found in the vehicles.
3. After exiting the "Victory in Europe, May 1945" exhibit, remind the students that although the war was over in the European Theater, the Imperial Japanese were still being fought by the Allied Powers in the Pacific Teather.

    Along the walkway toward the end of the Marshall Gallery, read the "Violent Combat," "Operation Downfall," and "A New Weapon Against Japan" explanations on the banners. Be mindful when reading these explanations of the people these events and operations affected *and* of the significance of the first atomic bomb, which became an influential factor in the rising tensions of the Cold War.