

## World War I Technologies LESSON PLAN

### 9<sup>th</sup> Grade World History Benchmark:

SS.912.W.7.2: Describe the changing nature of warfare during World War I.

### Directly Correlated 11<sup>th</sup> Grade U.S. History Benchmark(s):

SS.912.A.4.5: Examine causes, course, and consequences of United States involvement in World War I.

SS.912.A.4.7: Examine the impact of airplanes, battleships, new weaponry, and chemical warfare in creating new war strategies (trench warfare, convoys).

### Learning Goals/Objectives:

- Students will be able to identify new technologies and explain how they impacted the nature of warfare during World War I.
- Students will be able to examine the experiences of soldiers during World War I.

### Essential Question(s):

- How has technology impacted the nature of warfare over time?
- How does technology impact the experiences of soldiers at war?

**Key Vocabulary:** *(terms in **BOLD** also appear in 11<sup>th</sup> grade U.S. History item specs)*

U-boat, **trench warfare**, stalemate, “total war,” **militarism**, **new technology in World War I**, **unrestricted submarine warfare**, **airplanes**, **battleships**, **chemical warfare**, **convoy**, submarine, artillery, flamethrower, tank, “No Man’s Land”

### **Materials Needed:**

Attachment A: World War I Technologies Chart

Attachment B: WWI Technology Station Placards

Attachment C: Primary Source Excerpts

Attachment D: Instructions for Twitter Simulator and Padlet

**Time:** 80 min.

### **Steps to Deliver the Lesson:**

**Introduction/HOOK:** Play the song “On Patrol in No Man’s Land”

(<https://www.youtube.com/watch?v=wpFCuZ-B4j0>) for students. Ask them to answer the following questions as they listen. Then discuss as a class. (10 min.)

- What is the mood of this music? Does the mood match the lyrics? Explain.
- According to this song, what dangers do soldiers have to look out for?
- What do you think Jim Europe’s purpose was in writing this song?

### **Activity:**

1. Have students participate in a learning station activity, adapted from Teachers Curriculum Institute (TCI) resources. Instructions are detailed below: (50 min.)
  - a. Hand out the “World War I Technologies” chart (Attachment A) to students and give them a few minutes to read through the list of new technologies and make predictions about how each impacted the nature of warfare. While students are making their predictions you may place the Technology Station Placards (Attachment B) around the room if you have not already done so.
  - b. Have students count off numbers 1-9 so that you have 9 groups of 2-3 students. Give each small group or pair one of the primary source excerpts (Attachment C) to start. Instruct students to first read the excerpt to determine which new technology it is describing, then move to the Technology Station with the appropriate placard to learn more about it.
  - c. Once students have located the correct station, they should examine the image and use a QR code reader to access the web-based information or video about the technology. Have them record 2-3 pieces of new information they learned while at each station in their chart.
  - d. Have students exchange their primary source excerpt for a new one after visiting each station. The process repeats until each group has matched each primary source excerpt and visited each station. (Note: It is helpful to have two copies of

the primary source excerpts.) Once their charts are completed, have students answer the wrap-up reflection questions on the back of the chart handout.

**Closure:** Have students create fake Twitter messages and Tweets as if they were soldiers living through the conditions of World War I. Simulated Twitter messages can be created using this website: <http://simulator.com/generator/twitter>. Use a collaborative site for students to share their work such as [www.padlet.com](http://www.padlet.com) or another one. See Attachment D for more detailed instructions and examples of this assignment. (20 min.)

**Optional Extension Activity/Home Learning:**

Have students look for a current event news article related to the changing nature of warfare or war technology. For example: [http://www.nytimes.com/2016/06/17/world/europe/nato-russia-cyberwarfare.html?\\_r=0](http://www.nytimes.com/2016/06/17/world/europe/nato-russia-cyberwarfare.html?_r=0). Have them share their articles in small groups, discussing their reactions and any thoughts or questions. Each group should select one article to share with the whole class, and lead a brief discussion about it.

### World War I Technologies

	Prediction – How do you think this technology changed the war experience for combatants?	Primary Source – Match the excerpt to the placard. <i>(write the primary source #)</i>	Add 2-3 pieces of new information based on the placard.
Machine gun			
Flame thrower			
Artillery			
Tank			
Trench warfare			

Poison gas			
Airplane			
Battleship			
Submarine			

**Wrap-up**

Which technology do you think was most feared by soldiers? Why?

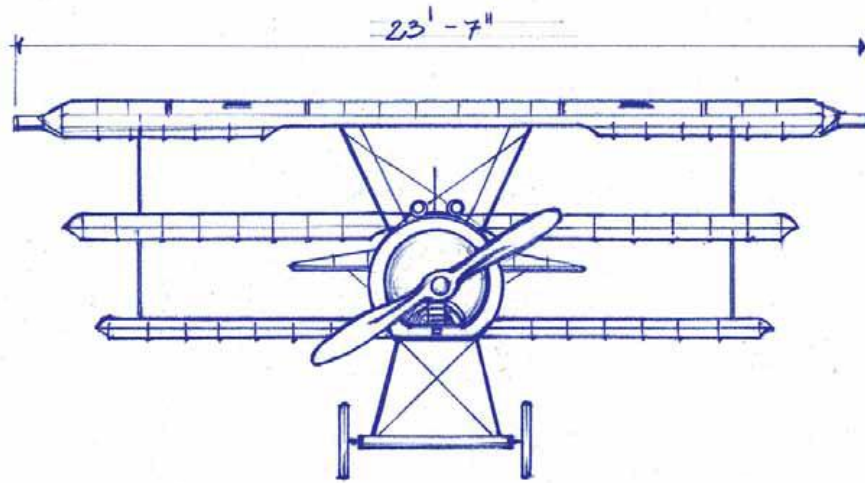
Which technology most changed how war was fought? Explain.

Which technology left the most lasting impact on future warfare? Explain.

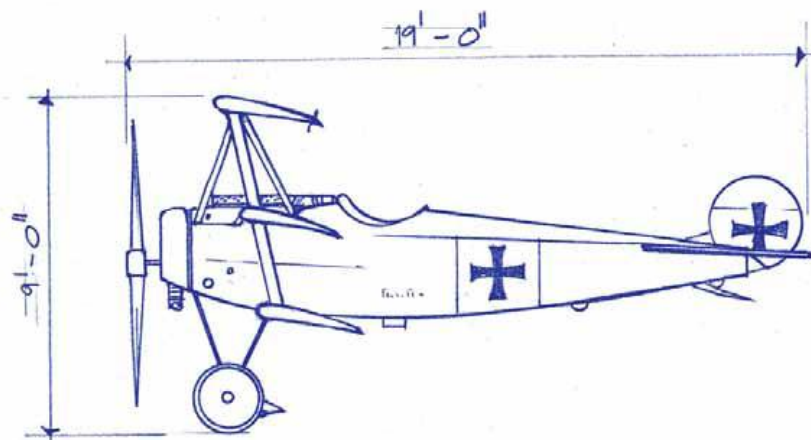
# Airplane



## GERMAN FOKKER DR-1 TRIPLANE



FRONT VIEW

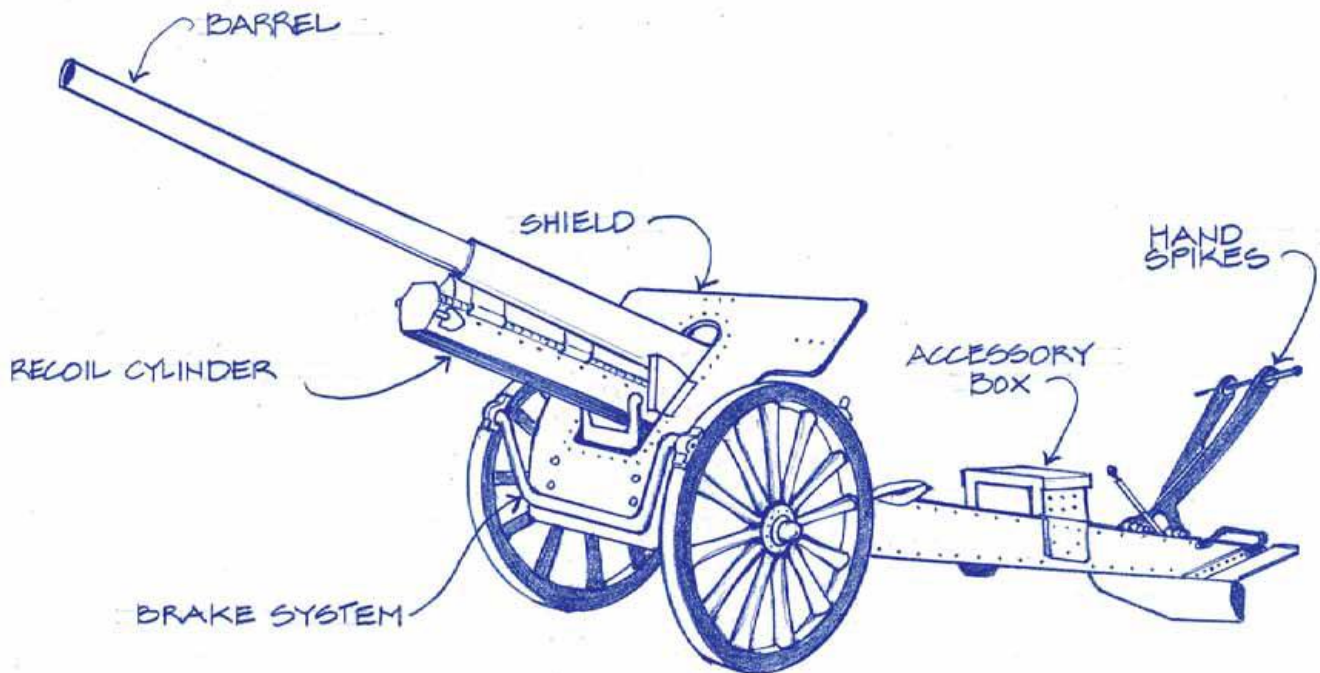


SIDE VIEW

# Artillery

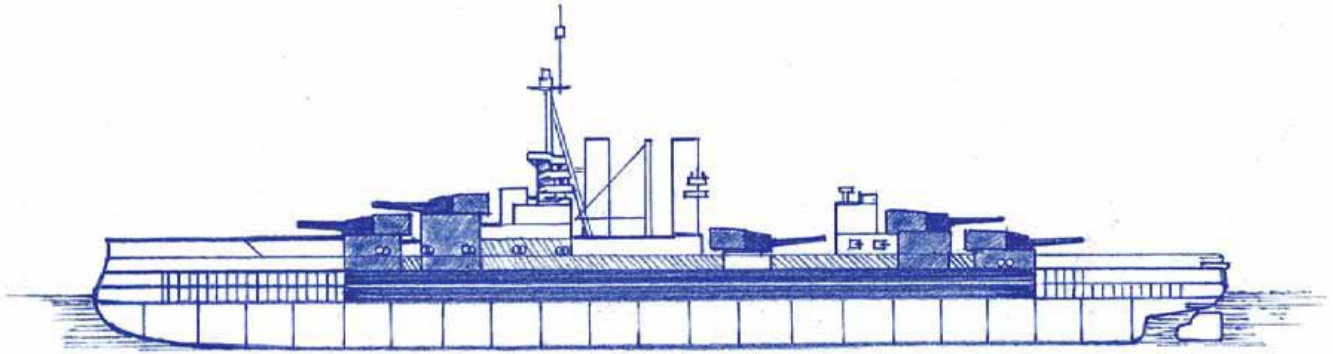


## GERMAN 10-CM FIELD GUN

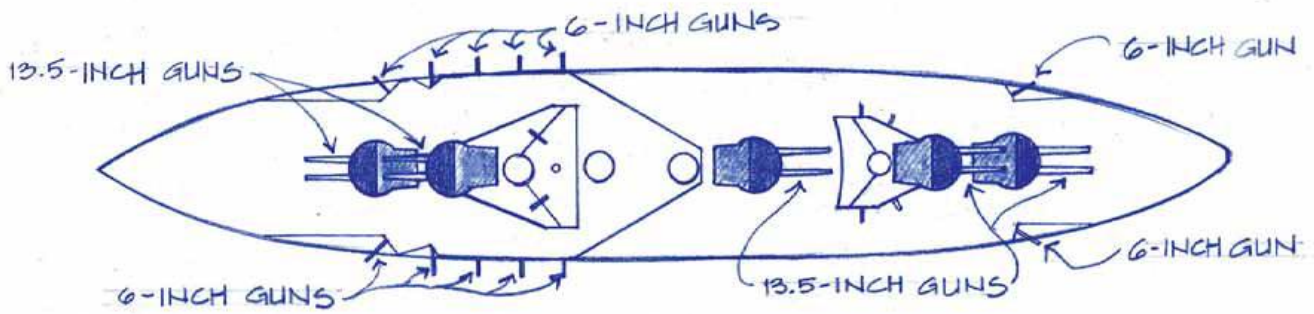


# Battleship

HMS IRON DUKE



SIDE VIEW



TOP VIEW

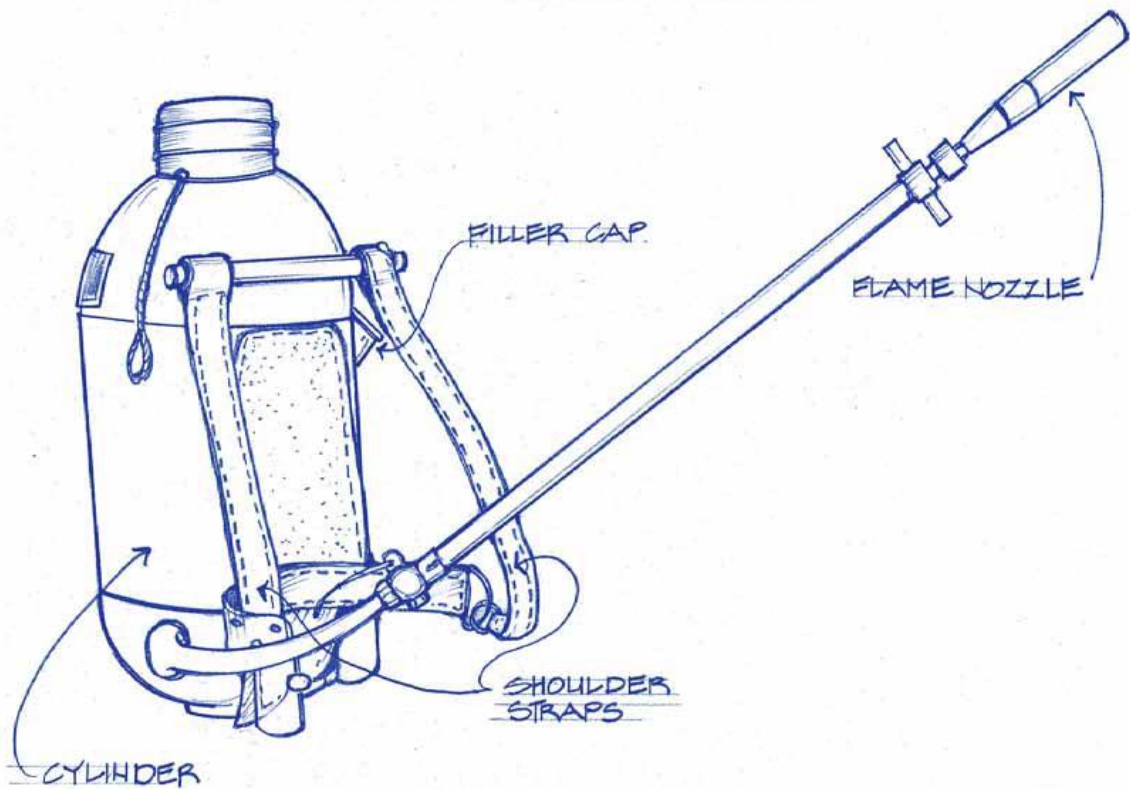




# Flamethrower

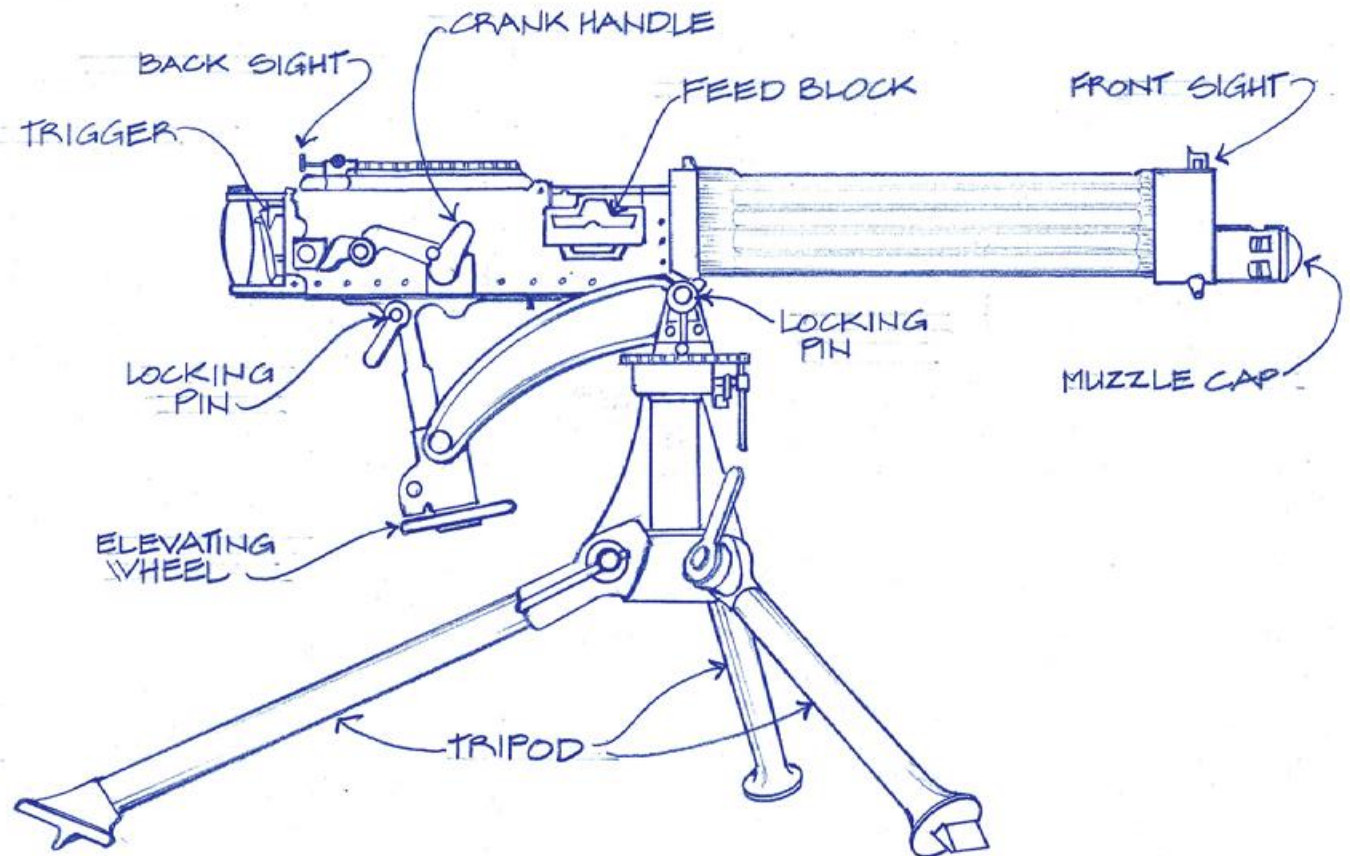


## GERMAN FLAMMENWERFER



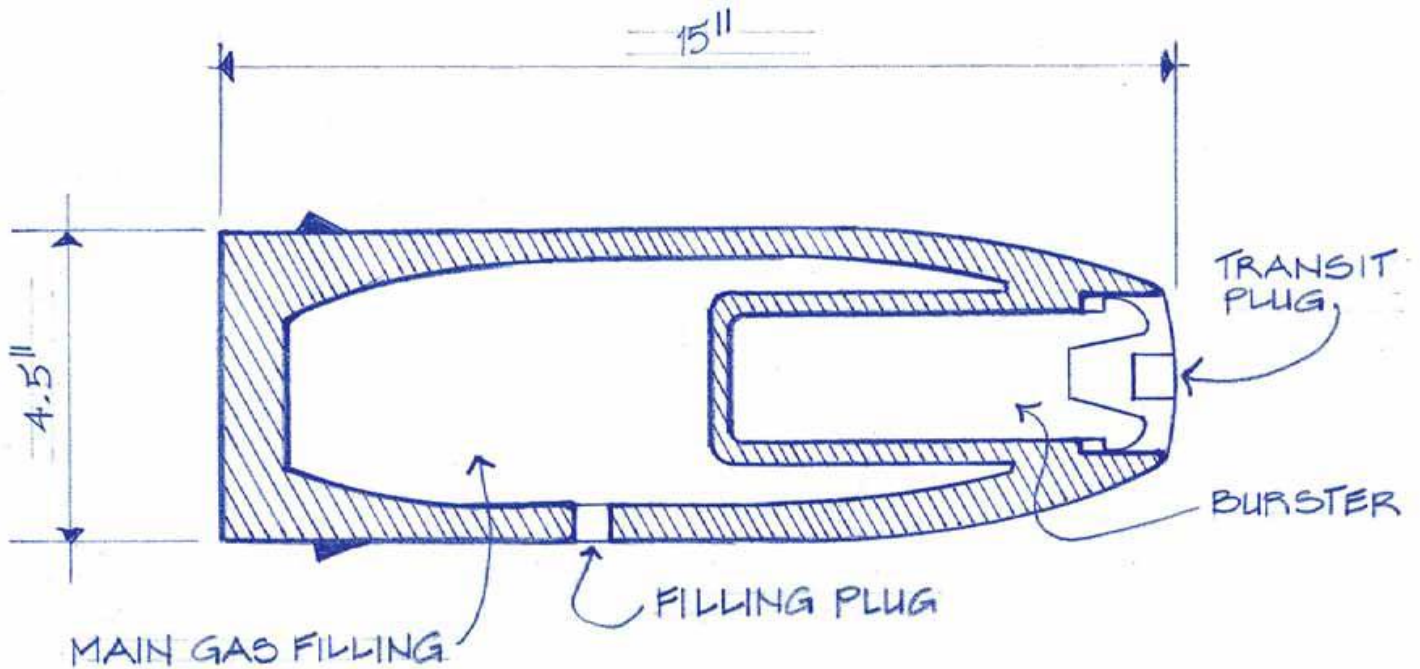
# Machine Gun

## BRITISH VICKERS



# Poison Gas Shell

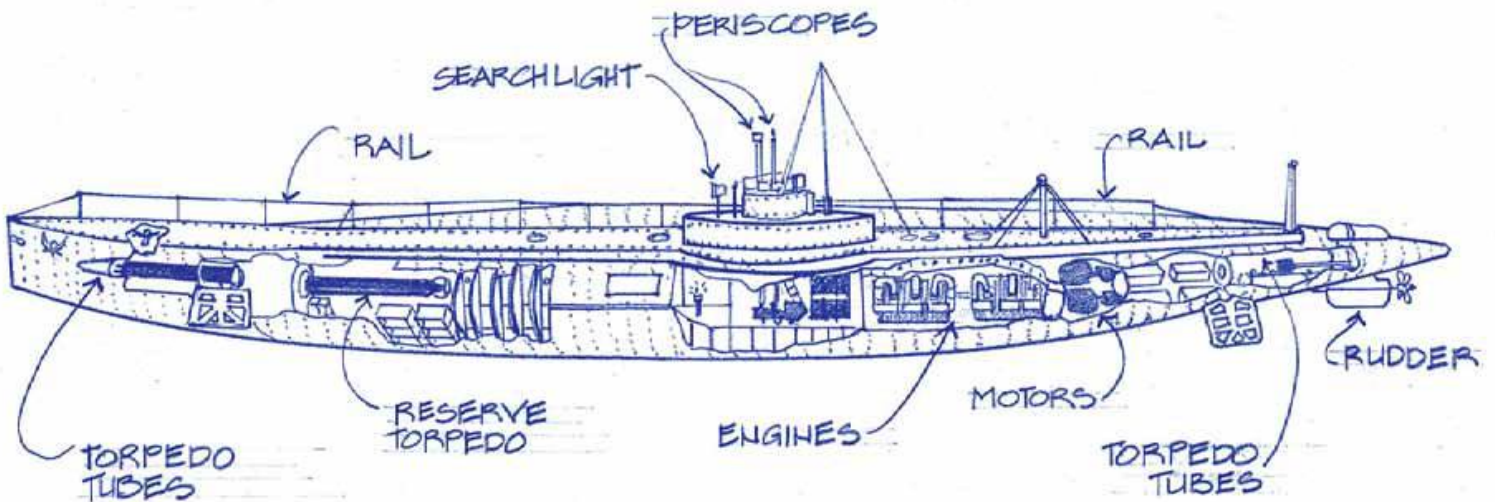
## TYPICAL GAS SHELL



# Submarine



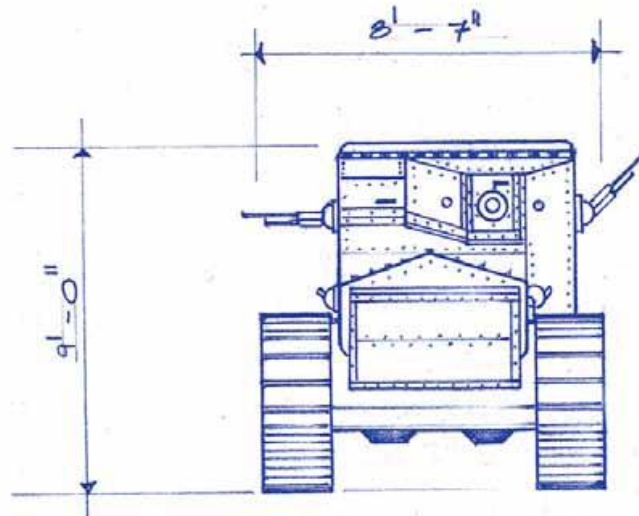
## GERMAN SUBMARINE U9



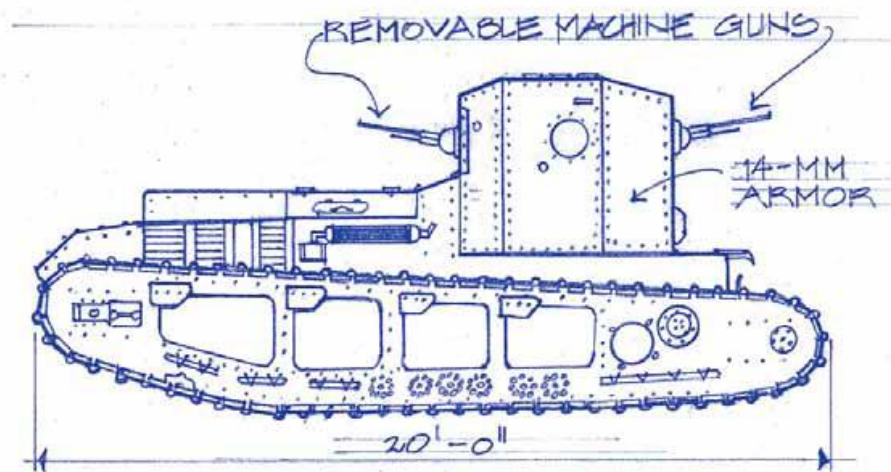
# Tank



## BRITISH MEDIUM MARK A WHIPPET



FRONT VIEW

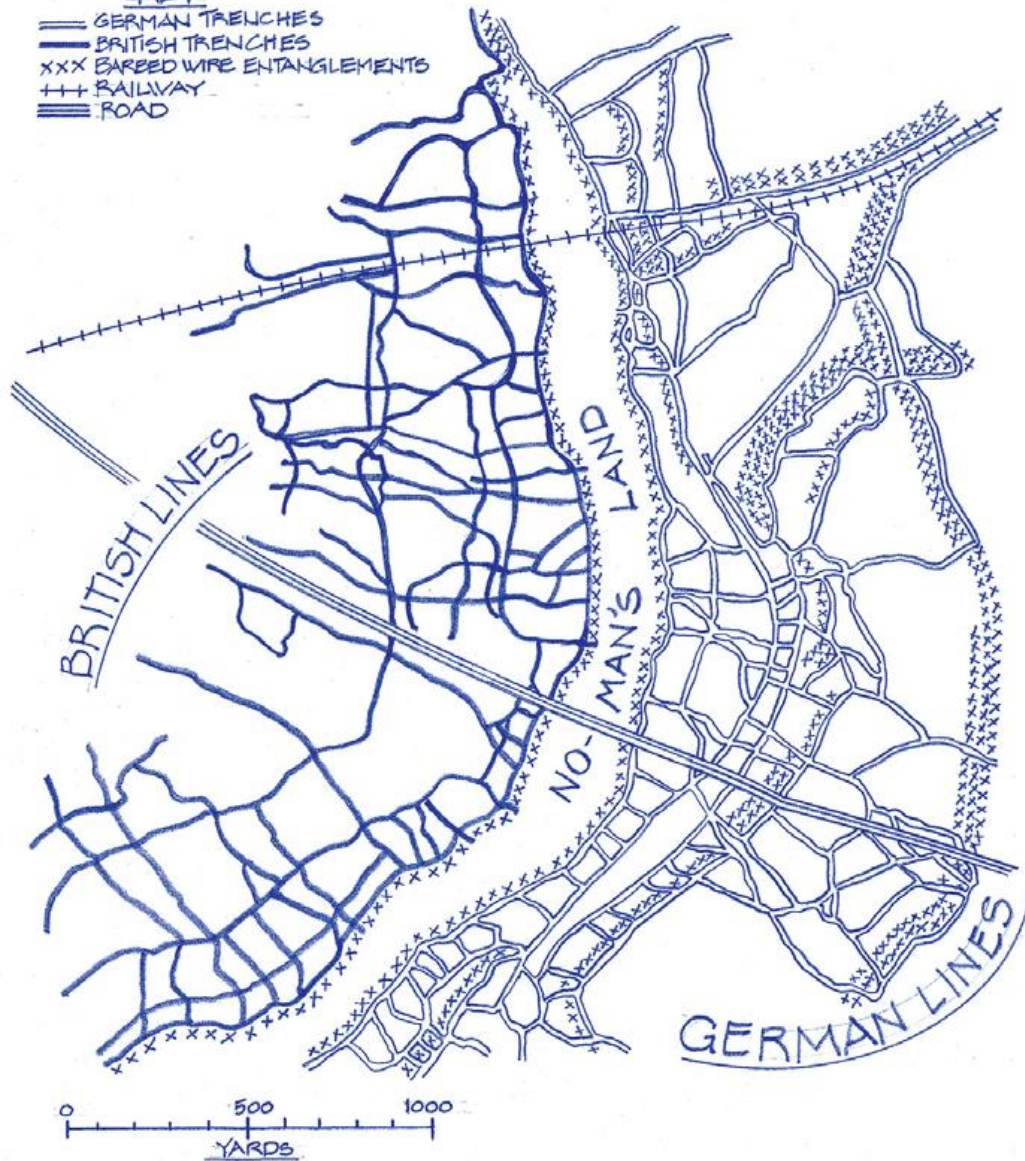


SIDE VIEW

# Trench System

## SECTION OF THE WESTERN FRONT

- KEY
- == GERMAN TRENCHES
  - BRITISH TRENCHES
  - xxx BARBED WIRE ENTANGLEMENTS
  - +++ RAILWAY
  - === ROAD



## Primary Source Excerpts

### Excerpt 1

The enemy battle-cruisers came up very rapidly, and must have made a speed of at least 26 knots . . . The enemy had separated and formed two groups, the leading one having three, and the other two ships. They were trying to keep at the farthest firing distance . . . The enemy battlecruisers then turned at once to a northerly course to . . . turn on the *Blücher* . . . Very soon after her engines were damaged another shot caused an explosion and a fire . . . the *Blücher* was sunk.

—Manfred von Richthofen, *Der Rote Kampfflieger (The Red Fighter Pilot)*, 1917

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### Excerpt 2

We heard strange throbbing noises, and lumbering [moving] slowly towards us came three huge mechanical monsters such as we had never seen before . . . Big metal things they were, with two sets of caterpillar wheels that went right round the body. There was a bulge on each side with a door in the bulging part, and machine-guns on swivels poked out from either side . . . There they sat, squat [thick] monstrous things . . . crushing the sides of our trench . . . [and] with their machine-guns swiveling around and firing like mad.

—Bert Cheney, *An Account of the First Tanks in Action*, 1916

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### Excerpt 3

I was awakened by a terrific crash . . . I could hardly breathe . . . I was put into an ambulance and taken to the base . . . I suppose I resembled a kind of fish with my mouth open gasping for air. It seems as if my lungs were gradually shutting up and my heart pounded away in my ears like the beat of a drum. On looking at the chap next to me I felt sick, for green stuff was oozing from the side of his mouth . . . I dozed off for short periods . . . I was always surprised when I found myself awake, for I felt sure that I would die in my sleep. So little was known about treatment for various gases.

—William Pressey, *Gassed at Messines Ridge*, 1917

**Excerpt 4**

There's a zone  
 Wild and lone  
 None claim, none own,  
 That goes by the name of No-Man's Land;  
 Its frontiers are bastioned [defended], and wired, and mined,  
 The rank [foul] grass shudders and shakes in the wind,  
 And never a roof nor a tree you find  
 In No-Man's Land.

—Major "H. D.'A. B.," *No-Man's Land*, exact date unknown

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**Excerpt 5**

I had taken the position of the three [enemy] ships before submerging, and I succeeded in getting another flash [look] through my periscope before I began action. I soon reached what I regarded as a good shooting point. Then I loosed one of my torpedoes at the middle ship. I was then about twelve feet under water, and got the shot off in good shape . . . I climbed to the surface to get a sight through my tube of the effect, and discovered that the shot had gone straight and true, striking the [enemy] ship . . . There were a fountain of water, a burst of smoke, a flash of fire . . . Then I heard a roar and felt reverberations [a boom] sent through the water by the detonation [explosion]. [The enemy ship] had been broken apart, and sank in a few minutes.

—Otto Weddigen, *A Memoir of the Sinking of the Aboukir, Cressy, and Hogue by U-boat U-9*,  
 1914

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**Excerpt 6**

Our gun's crew was busy mounting the . . . gun on the parapet [walls] and bringing up extra ammunition from the dugout . . . I trained my . . . gun on their [the enemy] trench and its bullets were raking the parapet [scraping the wall]. Then over they [the Germans] came, bayonets glistening . . . they looked like some horrible nightmare. All along our trench . . . guns spoke . . . They went down in heaps, but new ones took the place of the fallen. Nothing could stop that mad rush.

—Arthur Guy Empey, *Over the Top*, 1917



**Excerpt 7**

It was yesterday evening, just as night fell, that it happened. The day had been fairly calm . . . and nothing forewarned us of a German attack. Suddenly one of my comrades shouted, "Hallo! what is this coming down on us? Any one would think it was petroleum [fuel]." At that time we could not believe the truth, but the liquid which began to spray on us was certainly some kind of petroleum. The Germans were pumping it from hoses . . . A few seconds later incendiary [fire-starting] bombs began to rain down on us and the whole trench burst into flame . . . the men began to scream terribly, tearing off their clothes, trying to beat out the flames . . . We had our eyebrows and eyelashes burned off, and clothes were burned in great patches and our flesh was sizzling like roasting meat.

—Philip Gibbs, "Story of the Evening of Liquid Flames," in *Soul of the War*, 1915

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**Excerpt 8**

Last night Fritz [the Germans] put on a whale of a bombardment [attack], and I don't see how any of us escaped to tell the story. In the thick of it our communications were knocked out and I was detailed to repair the telephone line . . . Well, I thought of all the mean things I'd done in my life, breathed a little prayer, climbed out of my foxhole, and darted out . . . Flashes of exploding artillery at intervals lighted up the blackness of the night. Explosions of enemy shells on every hand and the scream of big ones going overhead to back areas added to the thunderous uproar so that I could not have heard my own voice had I dared to speak . . . I was splicing [joining] the wire when—Shriek! Bang! A ton of steel came over me.

—Corporal Elmer Sherwood, diary entry, October 30, 1918

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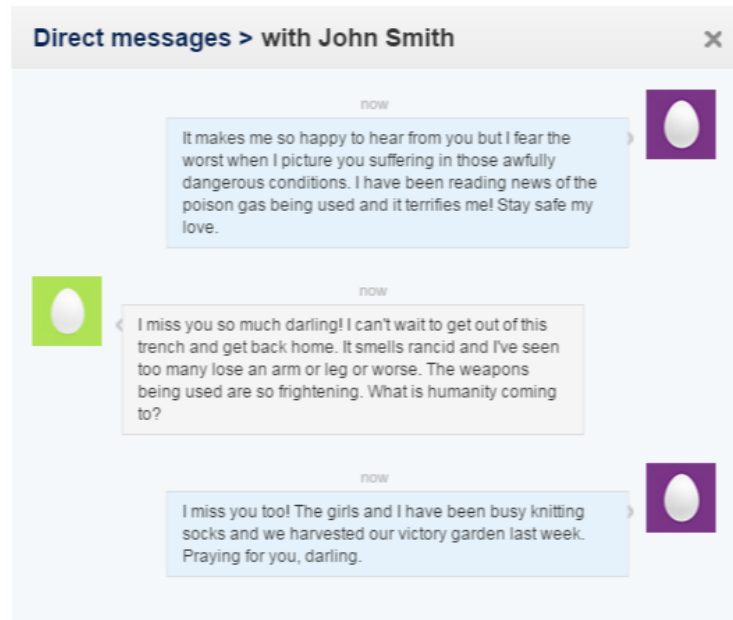
**Excerpt 9**

I turned from this extraordinary spectacle in midair to witness another which in all my life at the front I have never seen equaled in horror and awfulness. The picture of it has haunted my dreams during many nights since . . . I saw that a general fight was on between the remaining ten Fokkers and the eight Spads . . . Like a flash [Lieutenant] White zoomed up . . . and made a direct plunge for the enemy machine . . . without firing a shot the heroic White rammed the Fokker head on while the two machines were approaching each other at the rate of 230 miles per hour! It was a horrible yet thrilling sight . . . Wings went through wings and at first glance both the Fokker and the Spad seemed to disintegrate. Fragments filled the air for a moment, then the two broken fusilages, bound together by the terrific collision fell swiftly down and landed in one heap on the bank of the Meuse [River]!

—Eddie Rickenbacker, *Fighting the Flying Circus*, 1919

## Sample Twitter Direct Message

Direct students to go to this website: <http://simitator.com/generator/twitter/messages>. Have them enter a name for their soldier in the appropriate box, then type in the first message and click “Add message.” Have them toggle over to “Person 2” and enter a response in the message box and again click “Add message.” This process can be repeated to create a simulated Twitter direct message conversation. Have students click on the bar that says “Download Twitter Messages as JPG image” to save their work as an image that can be posted and shared.



## Sample Tweet



Direct students to go to this website: <http://simitator.com/generator/twitter/tweet>. Have them enter a name and handle (@name) for their character, then enter the text for the simulated tweet into the “Message” box. Encourage them to use relevant and appropriate hashtags. Have students click on the bar that says “Download Tweet as JPG image” to save the fake tweet as an image that can be posted and shared.

## Sample Padlet

In order to share their fake tweets and direct message conversations, students should post them on a class collaboration site. There are many options, of which padlet is just one. Go to [www.padlet.com](http://www.padlet.com) and create a new padlet (you will need to first create a free account if you do not already have one) by clicking the “New padlet” button in the top right corner of the window. Give your padlet an appropriate title and description by typing it into the “Modify padlet” box on the right. Select a layout, appropriate wallpaper, and customize any other preferences, then click NEXT until you have made all of your desired selections. Have students access this padlet by going to the URL in the address bar or via QR code. To get the QR code, click SHARE in the upper right corner, then click “SHARE/EXPORT/EMBED” and the QR code will pop up. A sample of using padlet to have students share their fake tweets and twitter conversations is pictured below.

