

# Standard

7.H.2.3

Explain how increased global interaction accelerates the pace of innovation in modern societies.

---

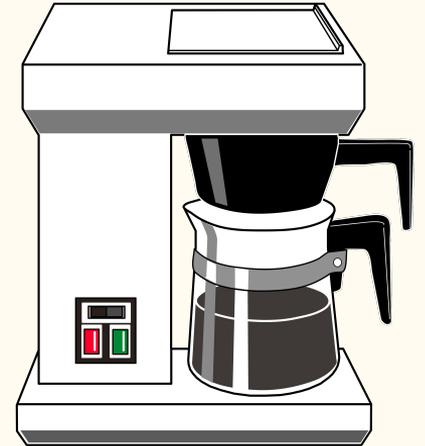
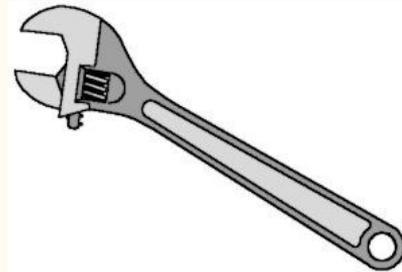
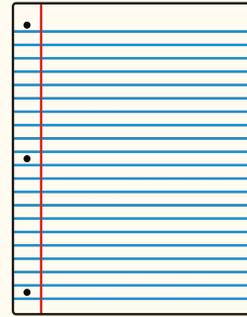
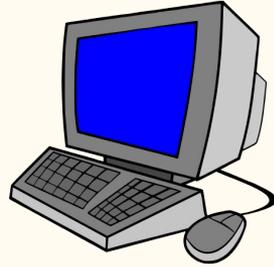
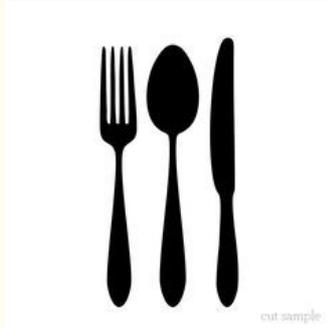
# Essential Question

How did World War I spark an increase in technology?

---

# Before we start...

What is technology?



# According to the dictionary...

Technology is the branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society, and the environment, drawing upon such subjects as industrial arts, engineering, applied science, and pure science.

# In other words...

Technology is any invention that makes civilized life easier!

Keep that in mind as you complete your assignment today.

# Hall Walk

You will complete a notes organizer about 14 technological advances that occurred (or boomed) during World War I.

One of the questions you have to answer is, “How is this a technological advance?” When answering this, keep in mind the definition I just gave you. In other words, ***“How does this idea or item make life easier for people?”***

12 of these innovations can be viewed [here](#) for students who are absent. The other two are on the following slides.

# 14 Technological Advancements of WWI

Students will participate in a hallway gallery walk featuring 14 major technological advancements of WWI.

# The Machine Gun

Invented by Hiram S. Maxim in 1884, the first automatic machine gun was birthed in the United States. Maxim's machine gun was completely self-powered and worked by relying on the energy released in the firing cartridge that would then dislodge multiple bullets with nothing more than the pull of a trigger. This kind of technology was unheard of and it was what prompted this primitive powerhouse to be first demonstrated by the British armed forces. At this time, it released an initial 600 rounds per minute, what would be a detrimental number for the opposition in years to come. The "Maxim" gun had a water-cooled jacket that stretched round the barrel, holding one gallon of water and while this innovative technology was nothing short of epic, especially in its time, it had one peak pitfall... it weighed a whopping 136.5 pounds. It was difficult to move in times when quick thinking was critical but its size and clunky demeanor did not stop it from doing its job and doing it well.

# Barbed Wire

An Illinois cattleman by the name of Joseph Glidden invented modern barbed wire in 1874. Made of two strands of intertwined wire connected at regular intervals by fixed barbs of twisted metal points, it was originally intended to prevent livestock from escaping confinement. Previously, cattle could free themselves from a wire enclosure by simply pressing against it. The pointy barbs served as a painful deterrent for cows.

By the outbreak of the First World War, Europe's militaries had long since added barbed wire to their inventories. After the First Battle of the Marne and the rise of static trench warfare on the Western Front, barbed wire appeared on both sides of No Man's Land in ever increasing quantities. It seemed as if factories on both sides of the conflict couldn't produce the stuff fast enough.

Barbed wire was typically laid out in long zigzagging strips or in belts running parallel to the trenches, often several rows and dozens of feet deep. Some wire obstacles were a little over knee-high to trip up and ensnare attackers, while the more heavy-duty barriers stood six feet tall or more to deter frontal assaults. Wire fields, particularly those on Germany's densely fortified Hindenburg Line could reach as far as 300 feet out into No Man's Land. While the obstacles were intended to prevent enemy raiders from getting within grenade-lobbing distance of a trench or observation post, the wire would also be laid out to funnel masses of charging soldiers into pre-arranged machine gun kill zones. Engineers on both sides even configured elaborate wire "traps" that featured deceiving gaps in the otherwise formidable barriers. Soldiers would charge through these inviting openings into pre-sighted enfilades where they would be slaughtered wholesale.

# Exit Slip

Answer on a piece of notebook paper.

How would war have been different without barbed wire and depth chargers?