

Machines Change Life

Compare how innovation and industrialization shaped daily life.

8.28 "Science, technology, and society. The student understands the impact of scientific discoveries and technological innovations on daily life in the United States..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each scientific discovery or technological innovation. Circle an effect on daily life, and write 1, 2, or 3 beside each underlined item to show the paragraph where it appears.

From Mills to Mass Markets

- ① During the early 1800s, steam engines gave factories a new source of power. Textile mills no longer had to stand beside fast-moving rivers, and owners could gather many workers and machines in one building. Factory work produced cloth more quickly and cheaply than home spinning and weaving. Industrialization, the growth of machine production and factory systems, changed daily routines. Many workers followed set shifts, including long hours, instead of setting their own pace at home. Growing factories also drew families from farms and small towns into cities.
- ② In the late 1800s and early 1900s, electric power extended the workday in stores and factories by providing safer, steadier light than many gas lamps. Electric motors powered machines without the belts and shafts used in some steam-driven plants. The telephone let businesses send information quickly across long distances, helping companies coordinate orders and railroad schedules. These innovations connected markets and sped up decisions. They also changed homes as electric lighting and appliances gradually reduced some household tasks, although access first varied by region and income.
- ③ After World War II, scientific discoveries about germs and medicines, along with mass production, reshaped health and consumer life. Antibiotics such as penicillin treated many bacterial infections that had once been dangerous. Assembly lines and new materials helped companies make cars, televisions, and packaged goods for large markets. Like nineteenth-century factories, postwar industries used machines and large workforces to make products in quantity. Early textile mills made cloth, while postwar industries mass-produced a wider range of complex household goods, including cars and televisions. Each period brought benefits, but uneven access and workplace concerns remained.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 How did early factory industrialization change the daily routines of many workers?

2 Compare steam power in the early 1800s with electric power in the late 1800s and early 1900s. Give one effect of each on factories.

3 How did the telephone change the way businesses worked?

4 Give one similarity and one difference between nineteenth-century factories and postwar industries.

3 YOUR TURN _____ Your own words

Choose one U.S. scientific discovery or technological innovation not named in the passage. Write 3 sentences that name its period, explain two effects on daily life, and compare one effect with industrialization.

PART 1 • READ AND MARK

Underline each scientific discovery or technological innovation. Circle an effect on daily life, and write 1, 2, or 3 beside each underlined item to show the paragraph where it appears. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How did early factory industrialization change the daily routines of many workers?	Many workers followed set shifts, often with long hours, rather than setting their own pace at home.
2	Compare steam power in the early 1800s with electric power in the late 1800s and early 1900s. Give one effect of each on factories.	Steam power let factories operate away from rivers and gather workers and machines in one building. Electric power provided steadier lighting and let motors run machines without some belts and shafts.
3	How did the telephone change the way businesses worked?	It let businesses send information quickly across long distances, helping them coordinate orders and railroad schedules.
4	Give one similarity and one difference between nineteenth-century factories and postwar industries.	Both used machines and large workforces to make products in quantity. Early textile mills made cloth, while postwar industries mass-produced a wider range of complex household goods, including cars and televisions.

PART 3 • YOUR TURN (SAMPLE ANSWER)

In the 1990s, the internet let many Americans send messages and find information from home. It changed daily life by making communication and shopping faster for people with access. Like industrialization, it created new jobs and connected larger markets, but it did not require workers to gather in one factory building.

Accept equivalent passage-based comparisons that accurately connect an innovation to changes in work, home life, health, production, or markets. For the open response, accept any accurate innovation not named in the passage that includes a period, two effects, and a valid comparison with industrialization.