

Inventors and Their Inventions (Teacher Key)

Directions: Use the provided space to write the effect of the given invention on nineteenth century society. (Example: The hand-held telephone makes it possible for us to talk to someone from any location.)

1. The cotton gin and musket invented by Eli Whitney:

Possible answer: The invention of the cotton gin made it easier to separate the cotton seed from its fibers. This made cotton more profitable for the landowner, increased the need for slaves in the South and strengthened the textile industry in the North, which relied on the use of women and children for long hours and at low wages.

Whitney introduced the idea of building arms with machines instead of the handmade muskets being made at that time. His idea was to use machines to generate identical and replaceable parts. Some machines were in use at that time, but none to do the precision work needed to make the weapons. The idea of interchangeable parts was also a brand new concept.

Eli Whitney's two greatest accomplishments were both causes of the American Civil War. The cotton gin created "King Cotton" and the use of machines and interchangeable parts industrialized the North.

2. The steam engine invented by Robert Fulton:

Possible answer: Robert Fulton built and successfully launched the Clermont which was the first commercial successful steamboat in American waters. It moved against the Hudson current from New York City at an average of five miles an hour and arrived in Albany in thirty-two hours (a trip that required four days by sail). Fulton's paddlewheel steamers enabled passengers and freight to be moved both upstream and down.

3. The advancements in the textile industry created by Francis Cabot Lowell:

Possible answer: Lowell developed the country's first working power loom. It was the first modern factory in the United States and the beginning of America's industrial revolution.

It was the first time in the world that spinning and weaving were done in one operation under the same roof; the first power loom to be used in the United States; the first time in the United



States that young women were employed as the predominant workforce and paid actual cash for their labor; the first company-sponsored housing provided for employees; the first textile mill to be built of brick; the first large successful manufacturing company in the United States; the first industrial labor strike in the United States (in 1821) and the FIRST time silk was made by machine in the United States.

The workers were largely young immigrant women. They lived in tightly controlled boarding houses. The company regulated their lives. It ran churches and sponsored cultural events. It boasted that these were Utopian communities and compared them with English sweatshops. By the late 19th century, Lowell had become a big ugly industrial town.

