

Lesson 2: A New Kind of Revolution

Vocabulary

Industrial Revolution a change in the way goods were produced, from being handmade to being made by machines

manufacture to make goods from raw materials

technology using new ideas to make tools that improve people's lives

cotton gin a machine that cleans seeds out of cotton

mechanical reaper a machine that harvests wheat

canal a ditch dug through the land and filled with water; it usually connects other bodies of water such as rivers, lakes, and seas

The Industrial Revolution

The **Industrial Revolution** changed the way goods were made. Before the Industrial Revolution, goods were made by hand. After the Industrial Revolution, they were made by machine. Machines helped businesses **manufacture** goods cheaper and faster. The Industrial Revolution began in Britain. At first Britain wanted to keep its **technology** a secret. Britain did not want others to know about the new ideas to make tools. The Industrial Revolution came to the United States in the late 1700s. The first cotton-spinning factory was built in New England in 1790. New England factories used rivers to power their machines. Many young girls from nearby farms moved to towns and worked at these factories.

Inventions Change Factories and Farms

Machines that helped businesses make more goods were invented. This meant more products for Americans and for trade. For example, Eli Whitney invented the **cotton gin**. This machine could clean 50 times as much cotton a day as workers could by hand. More cotton could be harvested. This meant that more cloth could be made. The **mechanical reaper** was invented in

1831 by Cyrus McCormick. It helped workers harvest wheat more easily. John Deere came up with a steel plow. It made plowing fields much easier.

Moving Goods and People

People needed better ways to get their products to market. Settlers going west also needed better methods of transportation. The National Road was begun in 1811. It ran from Maryland to Illinois. The road could be rough to travel on. In 1807 Robert Fulton invented a riverboat powered by a steam engine. It made traveling against a river's current much easier.

Canals were built in areas where there were no rivers. The Erie Canal linked the Great Lakes and the Atlantic Ocean. People and goods could travel on the canal to and from the East and the western frontier.

Early Railroads

On the earliest railroads, horses pulled carts over the rails. The rails were made of wood and covered with iron. In 1830 a steam engine, or locomotive, was built to pull carts over rails. It could pull heavier loads faster than horses could. Railroads became the cheapest and easiest way to travel.

Lesson 2: Review

1. **Compare and Contrast** Fill in the box to compare the way goods were produced and transported before and after the Industrial Revolution.

Before the Industrial Revolution	After the Industrial Revolution
<ul style="list-style-type: none"> • Goods were made by hand. • Cotton plants were cleaned by hand. • Wheat was harvested with a long blade. • Goods were moved by horse over rough road. 	Empty space for student input

2. How did the Industrial Revolution change the way Americans produced goods?

3. Why were New England factory towns built near rivers?

4. **Critical Thinking: Problem Solving** Suppose you were an inventor in the early 1830s. What problem would you have wanted to solve? Use the problem-solving steps on page H3 of your textbook.

5. What advantages did the locomotive have over carts pulled along rails by horses?
