

Social Studies Ch. 9 Lesson 4 Study Guide
"New Ideas and Inventions"

Vocabulary:

- **canal** – a human-made waterway that connects bodies of water
- **lock** – a section of water held by two gates that allows the level of the water in a river or canal to go up or down
- **locomotive** – railroad engines
- **Industrial Revolution** – the period of time during the 1800's when machines took the place of hand tools to manufacture goods
- **cotton gin** – a machine that removed seeds from cotton
- **interchangeable parts** – parts that are exactly alike

Transportation

The Erie Canal made a great effect in our nation's trade. It cut the time and cost of shipping goods from Buffalo to New York City tremendously. Canals are sometimes a better choice for transportation than rivers because rivers have changes in elevation, rapids, and sometimes waterfalls. Canals can avoid those obstacles. Canals are also helpful because they can connect two bodies of water, therefore extending the natural waterways.

Robert Fulton used the British steam engine to power a boat. Soon steamboats became the main form of travel on large rivers. Peter Cooper built America's first locomotive with the steam engine. These steam engines changed travel in the 1800's because the steamboats and locomotives were the cheapest and fastest forms of transportation. These improvements in transportation encouraged more immigrants to settle in the West.

The Industrial Revolution

During the Industrial Revolution, people invented machines to take the place of doing work by hand. Samuel Slater built America's first textile mill in Rhode Island after memorizing the plans for building the machines and sneaking them into the United States. Soon there were several factories in the U.S., and many people began working outside of the home. Immigrants often flocked to the cities in the north because the factories there provided many jobs.

Many inventors changed the way Americans farmed. Eli Whitney changed plantation farming by inventing the cotton gin. The cotton gin had a positive effect on farming, because it farmers could now grow more cotton than before. However, there was also a negative effect. Because they could grow more cotton, farmers needed more slaves to harvest the cotton. Cyrus McCormick also changed farming by inventing a mechanical reaper for harvesting grain. John Deere invented a strong steel plow to cut through the heavy soil in the midwest.

Samuel F.B. Morse was an inventor who changed communication. His invention, the telegraph, sent messages from one machine to another along a wire.

The Industrial Revolution changed the nation. The inventions changed the way Americans traveled, lived, worked, and communicated. These new inventions led to the Industrial Revolution. Life in the United States was changing quickly.