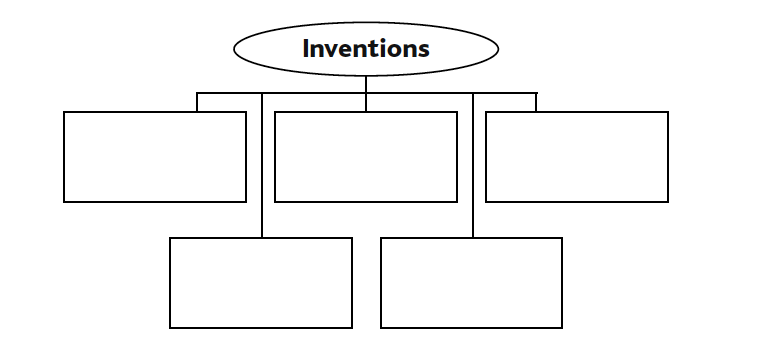
Chapter 8, Section 1

Economic Growth

**Use the diagram to help you take notes. Think about key inventions that contributed to the Industrial Revolution.**

In the colonial period, Americans used hand tools to make furniture, clothing, and other goods in their homes and workshops. In the mid-1700s, the way goods were made began to change. This first took place in Great

Britain. British inventors created machines to perform some of the tasks involved in making cloth. The machines used water power, so cloth makers built mills along rivers to power the machines. People left their homes and farms to work in the mills and earn wages. This period of great change was the Industrial Revolution.

In the United States, the Industrial Revolution first got underway in New England. Poor soil made farming difficult there. As a result, people were willing to give up farming for other work. Also, New England had many rivers which provided the waterpower needed to run the machines in the new factories.

New England’s location provided other advantages too. It was close to natural resources, such as coal and iron from nearby Pennsylvania. New England had many ports. The ports could bring in cotton from the South and send out finished cloth to markets nationwide.

The American economic system was important to industrial growth. Under this economic system, called capitalism, individuals put their capital, or money, into a business in hopes of making a profit.

Free enterprise is another term for the American economy. In this system, people are free to buy, sell, and produce whatever they want. The major elements of free enterprise are competition, profit, private property, and economic freedom. Business owners are free to produce the products they think will bring a profit. They compete for buyers, who are looking for the best products at the lowest prices.

Workers, waterpower, location, and capital were all key factors to the Industrial Revolution in New England. One more essential factor was the invention of new machines and technology—scientific discoveries that

simplify work. Inventions such as the spinning jenny and water frame, which spun thread, and the power loom, which wove thread into cloth, made cloth manufacturing faster and less expensive.

In 1793, Eli Whitney of Massachusetts invented the cotton gin. This simple machine removed the seeds from cotton fiber quickly and easily. The cotton gin enabled one worker to clean cotton as fast as 50 people working by hand.

In 1790 Congress passed a patent law. A patent gives an inventor the sole legal right to his or her invention and its profits for a certain period of time.

The British tried to keep their new technology secret. They passed laws prohibiting their machines and skilled mechanics from leaving the country. The factory in Britain where Samuel Slater worked used machines invented by Richard Arkwright for spinning cotton thread. Slater memorized the machines’ designs and slipped out of Britain. In the United States, Slater duplicated Arkwright’s machines in his Rhode Island cotton mill and made cotton thread. Slater’s mill marked an important step in the Industrial Revolution in America.

Francis Cabot Lowell opened a textile (cloth-making) mill in Massachusetts that launched the factory system. For the first time, all manufacturing steps were performed in one place. The factory system changed the way goods were made—and marked another important step in the Industrial Revolution.

Inventor Eli Whitney started the use of interchangeable parts—identical parts that could be put together to make a complete product. Because the parts were identical, they required less skill to make and they made repair easier. Interchangeable parts paved the way for mass production and lower prices.

In the 1820s, more than 65 percent of Americans were farmers. In the Northeast, most farms were small and sold their goods locally. In the South, cotton production soared. The development of textile mills in New England and Europe increased the demand for cotton. The cotton gin made cleaning cotton faster and less expensive, encouraging planters to raise larger crops. Farming expanded in the West as well. Southern farmers seeking new land to plant cotton moved west. Western farmers north of the Ohio River concentrated on raising pork and cash crops such as corn and wheat.

Most new industries were financed by small investors hoping to earn a profit if the new businesses succeeded. Low taxes and few government restrictions encouraged people to invest in new industries.

The growth of factories and trade spurred the growth of cities. Industrial towns sprang up along rivers and streams to use the waterpower. Cities like New York and Boston grew as centers of trade. Farther west as farmers shipped more products by water, towns located on major rivers, like Pittsburgh and Cincinnati, grew.

City streets were unpaved. Without sewers to carry waste away, diseases like cholera and yellow fever threatened the people. In 1793 a yellow fever epidemic killed thousands in Philadelphia. Fire was also a constant threat. Sparks from a chimney could spread fire through a city’s wooden buildings.

Cities had some advantages. People could leave farms for city jobs that paid steady wages. Growing cities added libraries, museums, and shops not available in rural areas.