

Warm-Up Activity

What Do You Know About the Industrial Revolution?

This lesson deals with the impact of the Industrial Revolution on daily life. Whenever you start to learn something about a time in history, it helps to think first of what you already know about it, or think you know. You probably have impressions. Or you may have read or heard things about it already. Some of what you know may be accurate. You need to be ready to alter your fixed ideas about this time as you learn more about it. This is what any historian would do. To do this, study this illustration and take a few notes in response to the questions below it.



This illustration is of an apprentice learning from a master craftsman. Can you tell what they are making? For centuries, all kinds of manufacturing took place in small shops and settings of this sort. What do you think were the advantages and drawbacks of work in such small-scale settings?

The Industrial Revolution changed the way work such as this was done. What do you know about the Industrial Revolution? How did it change work for people such as those shown here?

What other effects, good and bad, do you think the Industrial Revolution had? How do you know? Where have you learned about the early Industrial Revolution as it unfolded in England and America?

• *The Impact of the Industrial Revolution* •

The Industrial Revolution of the late 1700s and early 1800s truly was a revolution. In fact, it deserves that word perhaps more than any other episode of sweeping change in history—for it totally transformed life, first in England and then across the globe. It was the start of modern times and the constantly changing way of life we all confront today.

The Industrial Revolution began in England in the 1700s. Even by the 1600s, England was already a growing commercial society. Its mechanics, artisans, and engineers were increasingly aware of mechanical principles arising out of the scientific revolution of the 17th century. Its laws protected property and encouraged entrepreneurship. Then in the late 1700s, a series of inventions in textile manufacturing in England vastly increased the speed at which cotton could be spun into yarn, and the yarn woven into fabric. Textile production soon moved from small shops and homes to factories where the new machinery could be housed. At the same time, English inventors perfected the coal-powered steam engine. It produced far more mechanical energy than could human or animal muscle power, or even waterwheels and windmills. Soon, steam power and textile production transformed England into the world's first truly industrial nation.

The story of the Industrial Revolution can be and often is told in terms of the key figures who brought it into being. In 1687, Isaac Newton's discoveries formed the basis for the modern science of physics and offered an accurate understanding of mechanical principles to guide the development of industrial machinery. In 1709, Abraham Darby used coke from coal to smelt iron ore, taking advantage of England's plentiful supplies of coal. In 1712, Thomas Newcomen built the first usable steam engine to pump water out of deep coal mines. In 1733, John Kay invented the flying shuttle for looms, making it possible to weave yarn into cloth at a much faster rate. In 1765, James Hargreaves's spinning jenny partially solved the problem of the need to increase yarn production to keep pace with faster weaving output due to the flying shuttle. A few years later, Richard Arkwright developed his

spinning frame, also called a "water frame" because it was powered by a waterwheel, making factory textile production more profitable.

Meanwhile, in 1769, James Watt got a patent for the separate condenser to his new steam engine, making steam engines much more efficient and easier to use. Fifteen years later, Edmund Cartwright's power loom produced textiles faster than hand-powered looms. At first it relied on water power, and hence factories using it had to be located along streams. By the early 1800s, steam engines were powering looms. In 1801, Robert Trevithick used high-pressure steam in a boiler, and in 1804, he ran one of his engines on railway lines for the first time. In 1825, George Stephenson opened the Stockton and Darlington Railway to carry coal from the coalfield of South Durham to the port at Stockton-on-Tees.

This listing of inventors and entrepreneurs could be expanded to cover the entire range of new techniques and machines that brought the industrial world into existence. However, these bold and imaginative leaders are not the whole story of the Industrial Revolution. That transformation of life had an enormous impact on everyone in England, and in time on everyone in the world.

So what was the impact of the Industrial Revolution on the daily lives of millions of men and women affected by it?

The answer to that question depends very much on which groups of people you have in mind and at what times during the 1700s and 1800s. Even before the Industrial Revolution, Great Britain was already prosperous in general compared to other nations in Europe and in many other parts of the globe.

In rural areas, the drive to enclose land previously held in common and divide it up among private farmers was part of a broader movement to modernize agriculture. This helped some farmers, usually the more prosperous and innovative. Yet it also deprived others of resources they shared within their communities. It may well have left poorer

farmers landless, but it also allowed for greater agricultural efficiency. Farm output grew, adding to the nation's overall wealth.

As agricultural productivity rose, so also did England's rural population. With a surplus of workers on the land, many of the poorest had to relocate and search for work in the growing cities. Factory production, especially of textiles, vastly increased the supply of goods available, and this rapid expansion also resulted in falling prices of many common articles. The nation's wealth soared, and its ability to trade its products all over the world did also.

The rise of factory production supplied the jobs that the surplus rural population needed. However, life in the burgeoning city slums and work in the factories were often true miseries. Most rural people were used to having all family members work long hours on the land; in the factories, they accepted the same as their lot. However, 12 to 14 hours a day of machine-regulated work was especially hard on young children and women. Each day, after the hot, often unsanitary conditions inside these factories,

many then returned to their dark, cramped hovels in slums that were breeding grounds for crime and disease.

At the same time, overall living standards in England were rising. An energetic and entrepreneurial middle class was happy about England's growing prosperity. Reports do suggest conditions in some cities and in many rural areas were improving. Given the rapidly increasing productivity, it would be surprising had it not resulted in many winners as well as losers. An increasingly open, free-market capitalist system was evolving. In such a system, competition does produce winners and losers, and very visible and painful forms of inequality can result.

Was this a price worth paying? Given the prosperity, longer life expectancy, and spreading wealth of the past two centuries, some say yes; others are not so sure. Historians, like others, often disagree about this, but not about the overwhelming importance of the Industrial Revolution and its impact on all of us.

Points to Keep in Mind

Historians' Questions

Historians debate many aspects of the Industrial Revolution. One major debate has to do with the causes of this great transformative development. What gave England the advantage in leading the way to the industrial age? Was it the resources of coal and iron it had? Was it the wealth of its growing colonial empire? Was it something special in the society, culture, or political climate?

In this unit, we are not so much concerned with those questions as we are with other debates that focus on the social impact of the Industrial Revolution. How did it affect the way people lived, their work, their families and homes, the way they thought about life, about the past and future, and about what was possible for them? Historians do not all agree in judging the Industrial Revolution's short-term and long-term effects. Was its impact as harsh as it seems when looking at conditions for poor workers in factories and mines? Or did the new wealth and opportunities it opened up make up for all that? These are questions historians still debate.

The Primary Source Evidence

For this lesson, you will study ten primary source documents on the Industrial Revolution. Nearly all of them are from England, where the earliest impact of this huge change was felt. Some of the sources are about the factory towns and slums. Others are about railroads, rural life, and overall conditions in England. These sources should give you evidence to help you better understand the impact of the Industrial Revolution on key aspects of daily life. The sources will also help you make informed judgments of your own on what two historians say about these matters.

Secondary Source Interpretations

After studying and discussing the primary sources, you will read two short passages by two different historians. The historians who wrote these passages differ in their views about the impact of the Industrial Revolution on daily life. You will use your own background knowledge and your ideas about the primary sources as you think about and answer some questions about the views of these two historians.