

THE INDUSTRIAL REVOLUTION BEGINS

Viewpoints

The use of machines in manufacturing became widespread during the Industrial Revolution. Below are two views regarding the impact industrialization had on society. The first excerpt is by Thomas Carlyle, an English author and social critic. The other excerpt is by Andrew Ure, a professor at the University of Glasgow and supporter of the factory system. ♦ *As you read, think about the writers' reactions to the changes brought about by advances in technology. Then, on a separate piece of paper, answer the questions that follow.*

Responses to the Industrial Revolution

**From *Signs of the Times: The "Mechanical Age"* (1829)
by Thomas Carlyle**

It is the Age of Machinery, in every outward and inward sense of the word. . . . Our old modes of exertion are all discredited, and thrown aside. On every hand, the living artisan is driven from his workshop, to make room for a speedier, inanimate one. The shuttle drops from the fingers of the weaver, and falls into iron fingers that ply it faster. . . . There is no end to machinery. . . . For all earthly, and for some unearthly purposes, we have machines and mechanic furtherances; for mincing our cabbages; for casting us into magnetic sleep. We remove mountains, and make seas our smooth highways; nothing can resist us. We war with rude [unrefined] Nature; and, by our resistless engines, come off always victorious, and loaded with spoils. . . .

Source: *Signs of the Times: The Mechanical Age*, by Thomas Carlyle (London: Chapman and Hall, 1829).

**From *The Philosophy of Manufactures* (1835)
by Andrew Ure**

When the first water-frames for spinning cotton were erected at Cromford, . . . mankind were little aware of the mighty revolution which the new system of labour was destined by Providence to achieve, not only in the structure of British society, but in the fortunes of the world at large. . . .



Young mill workers, 1846

The principle of the factory system then is, to substitute mechanical science for hand skill. . . . On the handicraft plan, labour more or less skilled was usually the most expensive element of production . . . but on the automatic [mechanical] plan, skilled labour gets progressively superseded, and will, eventually, be replaced by mere overlookers of machines. . . .

It is, in fact, the constant aim and tendency of every improvement in machinery to supersede human labour altogether, or to diminish its cost, . . .

Source: *The Philosophy of Manufactures*, by Andrew Ure (London: Chas. Knight, 1835).

Questions to Think About

1. What examples does Carlyle give of workers being replaced by machines?
2. According to Ure, what is the advantage of using machines in manufacturing?
3. **Recognize Cause and Effect** Reread the first paragraph of the excerpt by Carlyle. List one cause and several effects of the Industrial Revolution that he describes.