



Heroes of Progress, Pt. 13: James Watt

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Published **January 11, 2023**

James Watt's improvement of the steam engine ushered in a wave of industrialization, first in Britain and then around the world, that transformed our economy, society, politics, and environment. Some historians believe that the Industrial Revolution has been the most fundamental change in human life since the Neolithic Revolution, when prehistoric humans turned from hunting and gathering to agriculture. James Watt was a key figure in this transformation.

Warm-Up

- What do you already know about James Watt, steam power, and the steam engine? It's likely you've studied these topics before.

As a class, create a K-W-L chart.

K: What do you KNOW about James Watt, steam power, and the steam engine?

W: What do you WANT to know about James Watt, steam power, and the steam engine?

L: What did you LEARN about James Watt, steam power, and the steam engine?

- Prepare to read. Build your background knowledge about James Watt and the steam engine by watching this video, then answer the following questions:
 - Where was Watt from, and what was his occupation?
 - How did Watt's partnership with a Glasgow capitalist benefit both men?
 - What was one specific innovation created by Watt?

Questions for Reading, Writing, and Discussion

Read the article, then answer the following questions:

- Watt was not the first person to harness steam power. The Newcomen steam engine had been around for decades before Watt was born. What specific problems did Watt find with the Newcomen steam engine when he was asked to repair one?
- Watt faced many obstacles—both personal and economic—in building his steam engine and bringing it to market. Name three challenges faced by Watt during his early life and career.
- Institutions matter. What institutional and legal factors present in Britain at the time helped Watt and his business partners develop and benefit from their invention?
- Although Watt's steam engine was adopted across the entire manufacturing sector in Britain, in which industry did Watt's steam engine arguably have the biggest impact?
- The author writes, "Industrialization has lifted hundreds of millions of people out of poverty" and "industrialization ... would not have occurred without the Watt engine." This statement is true, but what does it leave out?

Using your knowledge of history, complete the chart below. Note both the benefits and costs of the Industrial Revolution.

Development	Benefits	Costs
New technology (e.g., the steam engine)		
Division of labor and increased specialization		
Expanded use of coal as a fuel source		
Growing population		
Increased urbanization		

Extension Activity/Homework

- **Write an Imaginative Short Story**

Think about how the Industrial Revolution has transformed our daily lives. Before industrialization, most work was done by hand or animal or water power. First steam power, then electricity, changed every aspect of how we live.

Now imagine that due to a natural or human-made disaster, our advanced technological know-how has been lost. People have reverted to pre-industrial ways of life.

Write an imaginative short story about yourself, your family, and your friends in this new, post-industrial world. How would your everyday routine and habits be different from what they are now? How would you spend your time? What challenges would you face? What aspects of life would be more enjoyable?

- **Dig Deeper by Completing an EDpuzzle**

Learn more about Watt and his innovation by completing this EDpuzzle. The video and questions will help consolidate your learning about this topic in a fun and engaging way.