

Britain Begins the Industrial Revolution



The Inventors and their Inventions

BRITAIN BEGINS THE INDUSTRIAL REVOLUTION

Unit 11, Lesson 2

Slide3

What was the main change that came about during the Industrial Revolution?

- Objectives

- Define Industrial Revolution.
- Identify the achievements of individuals who made major contributions to the Industrial Revolution in England.
- Recognize that the changes in manufacturing brought hardships to many people.



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What was the main
change that came about
during the Industrial
Revolution?



Quick Review

Quick Review

- What was the Industrial Revolution?

- A. An extreme change in the way things were made
- B. A war between Industry and the government
- C. A change in the way the government was run
- D. A war between France and Great Britain

- Why did the Industrial Revolution begin in Great Britain?

- A. Britain had the correct natural resources to begin a revolution in Industry
- B. Britain had the citizens who had a drive to succeed in industry
- C. Both A and B

Slide6

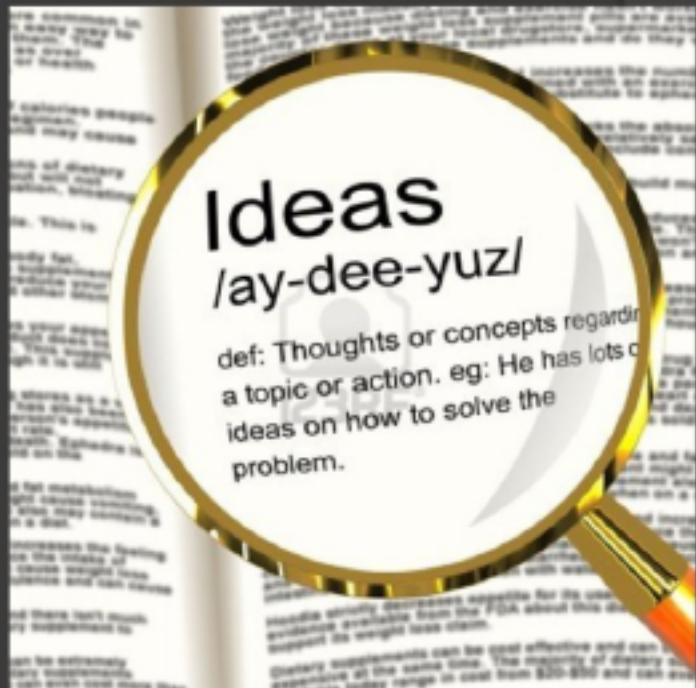
⦿ In what industry did the Industrial Revolution begin?

- A. Automobile
- B. Locomotive
- C. Textile
- D. Music



On to the Inventors and Inventions of the Industrial Revolution!

On to the Inventors and Inventions of the Industrial Revolution!



Directions

Directions

- ⦿ Look at pages 451-457 in your textbook

Who Am I?

Who Am I? John Kay

- ◉ Invented the flying shuttle
 - Allowed weavers to make wider pieces of cloth
 - Weavers could make pieces of cloth at much faster speeds
 - Tough for weavers to keep up with the demand for thread



Who Am I?



Who Am I?

James Hargreaves

- ◉ Invented the Spinning Jenny
 - Linked the flying shuttle and the spinning jenny into one machine
 - Could spin 16 strands of thread at one time
 - Fabric could be made much faster and cheaper
 - Still required human power



Who Am I?

Who Am I?

Richard Arkwright

- Invented the Water Frame
 - Used a flowing river as a source of power
 - Capable of making much stronger thread
 - Could spin as many as 80 threads at once
 - Another problem arose
 - Looms could not keep up with thread production



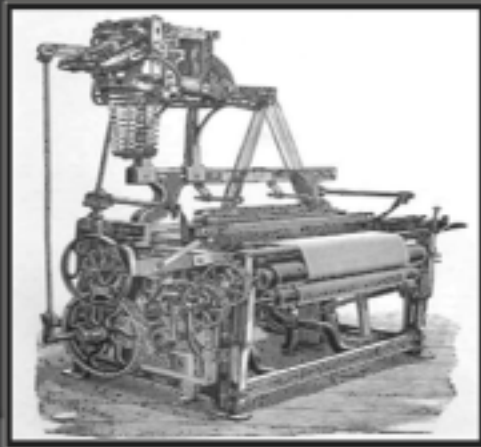
Who Am I?



Who Am I?

Edmund Cartwright

- ⦿ Invented a mechanical loom
 - Powered by horse or waterwheel
 - Could produce as much fabric as 15 weavers working at traditional looms
 - So easy, even children could operate this machine!



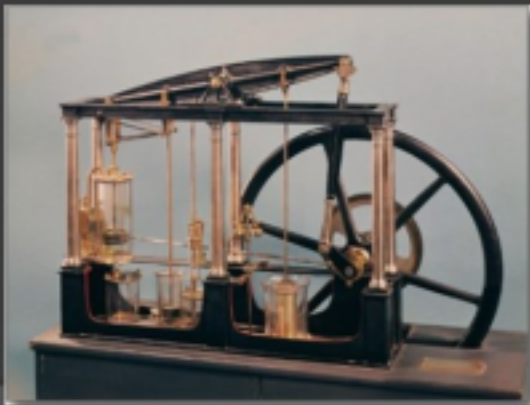
Uh oh!!

Who Am I?



Who Am I? James Watt

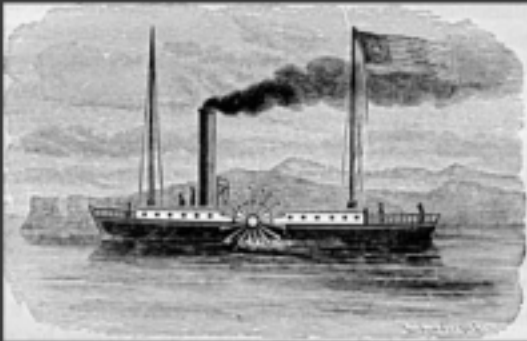
- Scottish student, who worked on crude steam engines used in coal mining
- He went on to invent his own, improved piston-driven steam engine that could power all kinds of machines and gave a huge boost to the Industrial Revolution.



Slide14



- Because of steam power, ships no longer had to depend on wind
- Mills no longer had to use water for power.
- Steam-powered machines could work at rates faster than human power ever could.



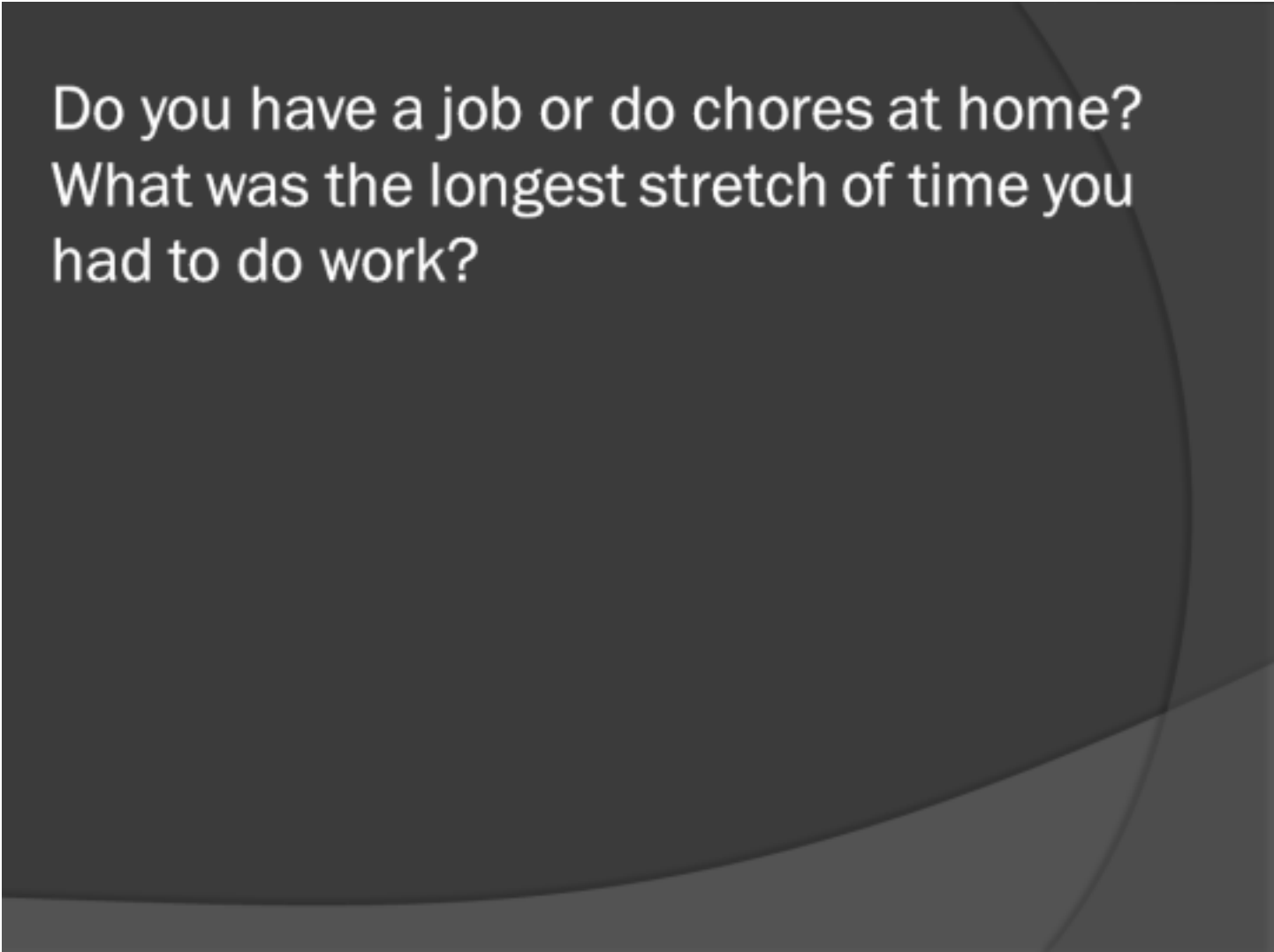
Samuel Slater and the Textile Industry

Samuel Slater and the Textile Industry

- ◉ British business men wanted to keep the new ideas to themselves
- ◉ Slater disguised himself and left for America, bringing his extensive knowledge of textile machinery
- ◉ Built America's first successful cotton mill
- ◉ Known as the "Father of the American Industrial Revolution"



Do you have a job or do chores at home? What was the longest stretch of time you had to do work?



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Industrial Revolution also brought many hardships

Industrial Revolution also brought many hardships

- 14-hour work days
- Child Labor



Match the inventors to their inventions

Match the inventors to their inventions

-
- John Kay
 - James Hargreaves
 - Richard Arkwright
 - Edmund Cartwright
 - James Watt
 - Samuel Slater
 - Piston-Driven Steam Engine
 - Water Frame
 - Spinning Jenny
 - "Father of the American Industrial Revolution"
 - Mechanical Loom
 - Flying Shuttle

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Exit ticket Question:

What was the main change that came about during the Industrial Revolution?



Make sure you do this **BEFORE** you Log out



HOMEWORK:

Complete Unit 11, Lesson 2
assessment in sapphire
take home quiz