

## Craft Production to Factory Production

1.26.15

Introduction	Factory production replaced the work of an individual craftsman with a series of specialized steps.
Time	45-50 minutes
Grade	5-8
Lesson Preparation	copy the Roller Blade Template (2 copies per student) supplies for coloring, scissors, glue.
Prior Knowledge Required	Students should have a basic introduction to pre-industrial work.
Background Information	<p>Before the Industrial Revolution, craftsmen made most tools, furniture, and other goods by hand. Craftsmen were classified into three categories: apprentice, journeyman, and master craftsman. A master craftsman was a person who had mastered all the techniques and skills of a given craft. After many years of practice, a craftsman was regarded as an expert who then passed along his knowledge and skills to apprentices, young boys who spent many years under his direction. A journeyman was a craftsman who had completed apprenticeship but did not yet have the experience or skill to be designated a master. A craftsman knew the whole process of creating an object; for example, each woodcrafter knew how to create a chair from raw material to finished product.</p> <p>With the advent of the Industrial Revolution, the job of creating an object was broken down into many steps, each of which was done by a different person. In the case of the wooden chair, one person might lathe the legs, another would create the seat, yet another would make the arms and back, and all the parts would then go to yet another set of people who would assemble them. The advantage is that single tasks could be done over and over, faster than when one person did everything start to finish</p>
Vocabulary	<ul style="list-style-type: none"><li>• Craft Production - an activity involving skill in making objects by hand.</li><li>• Factory System - The system of producing goods made on a mass scale by more than one person, each with a distinct task, replacing goods made by individual craftsmen.</li><li>• Mass Production - The manufacture of goods in large quantities by machinery and by use of techniques such as the assembly line and division of labor.</li><li>• Division of Labor - The assignment of separate parts of a manufacturing process or task to different people in order to improve efficiency.</li></ul>
Anticipated Student Preconceptions/	Students may confuse the factory system in which each person has one task to do with mass production where machines are doing the work of people. This activity illustrates the potential advantages and disadvantages of breaking the work down into repeatable step even though the work is still done by people.

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Misconceptions	
Frameworks	<p>Massachusetts Social Studies Frameworks</p> <ul style="list-style-type: none"> <li>• USI.28 Explain the emergence and impact of the textile industry in New England and industrial growth generally throughout antebellum America.</li> <li>• USII.2 Explain the important consequences of the Industrial Revolution.</li> </ul> <p>Common Core State Standards</p> <ul style="list-style-type: none"> <li>• CCSS.ELA-Literacy.SL.5.1.A: Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</li> <li>• CCSS.ELA-Literacy.RH.6-8.8: Distinguish among fact, opinion, and reasoned judgment in a text.</li> <li>• CCSS.ELA-Literacy.RH.9-10.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.</li> </ul>

Guiding Question	What advantage do factories provide in large-scale production?
Objectives	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Differentiate the key components of craft production and factory production.</li> <li>• Identify potential advantages and disadvantages of factory production and craft production.</li> </ul>
Activity	<p><i>Craft Simulation Activity</i></p> <ol style="list-style-type: none"> <li>1. Distribute one in-line skate template to every student. Explain that they are each a craftsperson who will assemble the skates start to finish. They must be cut out, blades glued on, and colored to the best of their ability.</li> <li>2. On his or her worksheet, ask each student to keep track of the amount of time that it takes to complete the task.</li> <li>3. After everyone completes their skate, compile and average the times it took all students to complete the task. This serves as the "standard" time it takes to produce in-line skates by hand.</li> <li>4. Point out the differences in "quality" among the hand-created skates.</li> </ol> <p>Why would hand-made items differ in quality or time from person to person?</p> <p><i>Factory Simulation Activity</i></p> <p>Divide the class into production lines of 5-8 students each. Give each group a supply of templates. Assign each student on the line a different task:</p>

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	<ol style="list-style-type: none"><li>1. Cut out right blade</li><li>2. Cut out left blade</li><li>3. Cut out right boot</li><li>4. Cut out left boot</li><li>5. Glue blade to right boot</li><li>6. Glue blade to left boot</li><li>7. Color boots</li><li>8. Inspect final product, put aside rejects, keep line moving</li></ol> <p>Using the "standard" of time determined during the craft lesson, see how many skates can be created during the same amount of time.</p> <p><i>Conclusion: Reviewing the Results – Class discussion</i></p> <ul style="list-style-type: none"><li>• What were some of the major differences between the two production methods?</li><li>• Why was the factory method so attractive from a business standpoint?</li><li>• How would consumers be affected by this new method?</li><li>• How would workers accustomed to the craft method feel about the working in a factory? Why?</li></ul>
Assessment	Have each student complete the Craft Production to Factory Production Worksheet.
Differentiation Suggestions	See below.
Adapting the Activity for Other Grades	<p>For younger grades, you may want to have each part of the activity (craft and factory) do the task a few times to get comfortable before timing.</p> <p>For older groups, challenge the groups to design additional improvements to the manufacturing process that fabricates product faster and with fewer errors.</p>
Bibliography	<p>McDaniel, Melissa. <i>The Industrial Revolution</i>. New York: Children's, 2012.</p> <p>Bagley, Katie. <i>The Early American Industrial Revolution, 1793-1850</i>. Mankato, MN.: Bridgestone, 2003.</p>

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CATEGORY	4 Above Standards	3 Meets Standards	2 Approaching Standards	1 Below Standards
<b>Sentence Structure</b>	All sentences are well constructed with varied structure.	Most sentences are well constructed and there is some varied sentence structure in the essay.	Most sentences are well constructed, but there is no variation in structure.	Most sentences are not well constructed or varied.
<b>Evidence and Examples</b>	All of the evidence and examples are specific, relevant and explanations are given that show how each piece of evidence supports the author's position.	Most of the evidence and examples are specific, relevant and explanations are given that show how each piece of evidence supports the author's position.	At least one of the pieces of evidence and examples is relevant and has an explanation that shows how that piece of evidence supports the author's position.	Evidence and examples are NOT relevant AND/OR are not explained.
<b>Accuracy</b>	All supportive facts and statistics are reported accurately.	Almost all supportive facts and statistics are reported accurately.	Most supportive facts and statistics are reported accurately.	Most supportive facts and statistics were inaccurately reported.

## Craft Production vs. Factory Production Worksheet

How much time did it take you to complete a set of skates in craft production?	<u>Start Time:</u>	<u>End Time:</u>	<u>Total Number of Minutes:</u>
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	<b>Craft</b>	<b>Factory</b>
What was your role?		
How many complete products did this method produce?		
If there was a difference in production, why do think so?		
What was the quality of products produced?		
Were there similarities or differences in the quality of the two products? Why?		
Why types of skills were required for this type of construction?		
Were the same skills needed for both? Why/why not?		
Which method would be more efficient and profitable? Why?		

Roller Blade Template

