



Lesson 11.3: New Hampshire's Industries

Production History Activation Prompts

Prepare each group's chart paper with these prompts, or your own, to focus and support student thinking.

Who?	Who may have made this item? Who would want or need this item?
What?	What was this item made from? What tools were needed to make this item?
Where?	Where did the materials to make this item come from? Where was this item made?
When?	When was this item made?
Why?	Why was this item made?
How?	How did someone find this item to buy? How did this item go from raw material to finished product?



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Name _____

Factors of Production

Labor: The human workers needed to make a product

Land: The natural resources needed to make a product

Capital: The human-made items used to make a product, like factories and machines

Entrepreneurship: The people and systems that connect the other three factors and help them grow



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Bales of Cotton, Alabama, circa 1900–1907
Courtesy of the Library of Congress

Factors of Production Image Set



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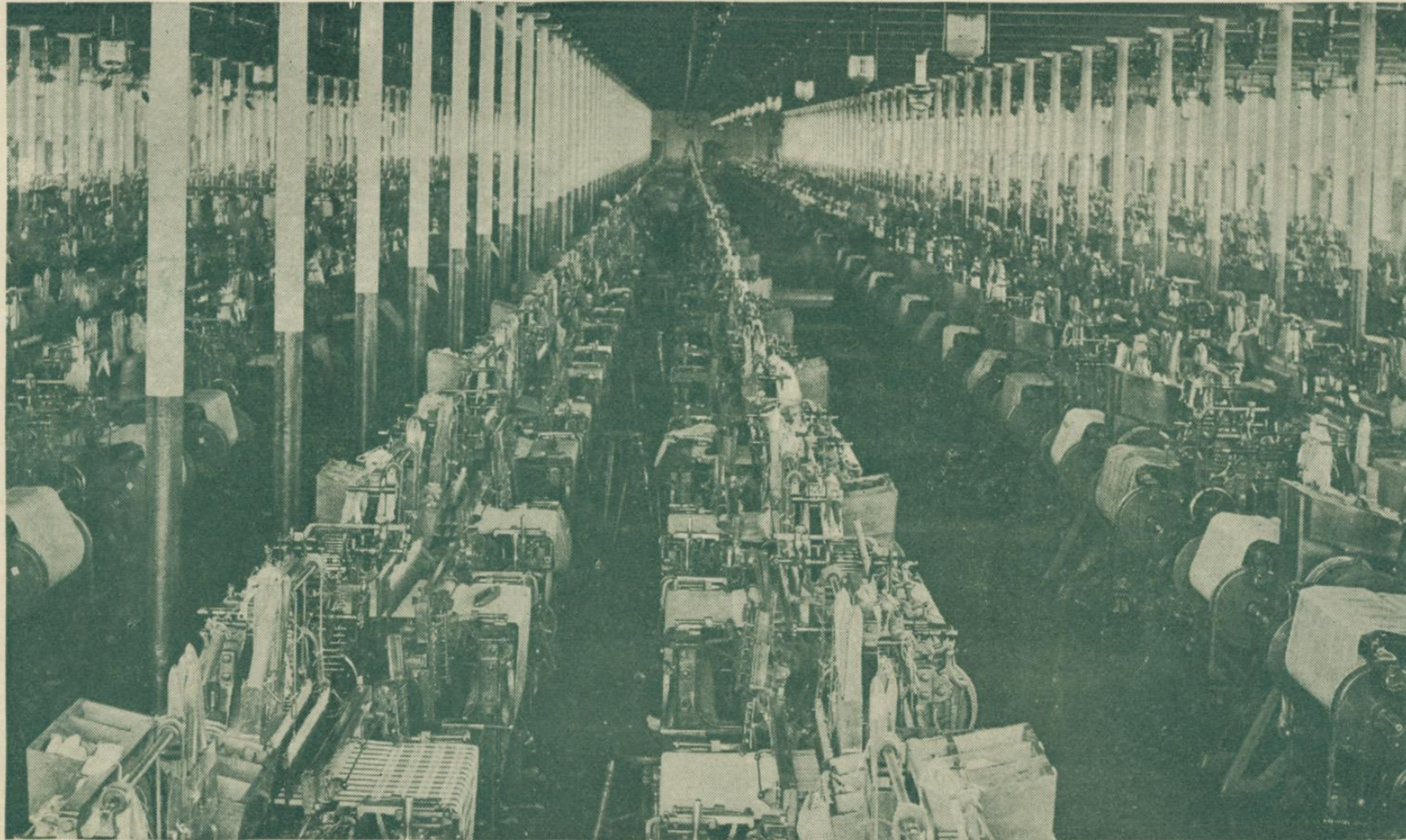


Logging at Amoskeag Falls, 1856
Source: New Hampshire Historical Society

Factors of Production Image Set



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WEAVE ROOM, NO. 11 MILL, MANCHESTER, N. H.

Published by F. E. Nelson, Manchester, N. H.

Weaving Machines at the Amoskeag Manufacturing Company, circa 1872–1935
Source: New Hampshire Historical Society

Factors of Production Image Set



ADOLPH MEYER & CO'S
WARRANTED SHOES!

	Men's \$1.50 WARRANTED. Bals. and Congress.	Men's \$2.00 WARRANTED. Bals. and Congress.	
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ALL SIZES, STYLES AND WIDTHS.

LADIES', \$2.00 Warranted.		Button and Polish. ALL SIZES, STYLES AND WIDTHS.
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Ladies', \$1.50 WARRANTED.		BUTTON & POLISH. All Sizes, Styles and Widths.
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FOR SALE BY

JERRY GOVE,
WILMOT, N. H.
DEALER IN
Boots, Shoes, and General Merchandise.

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Factors of Production Image Set Information

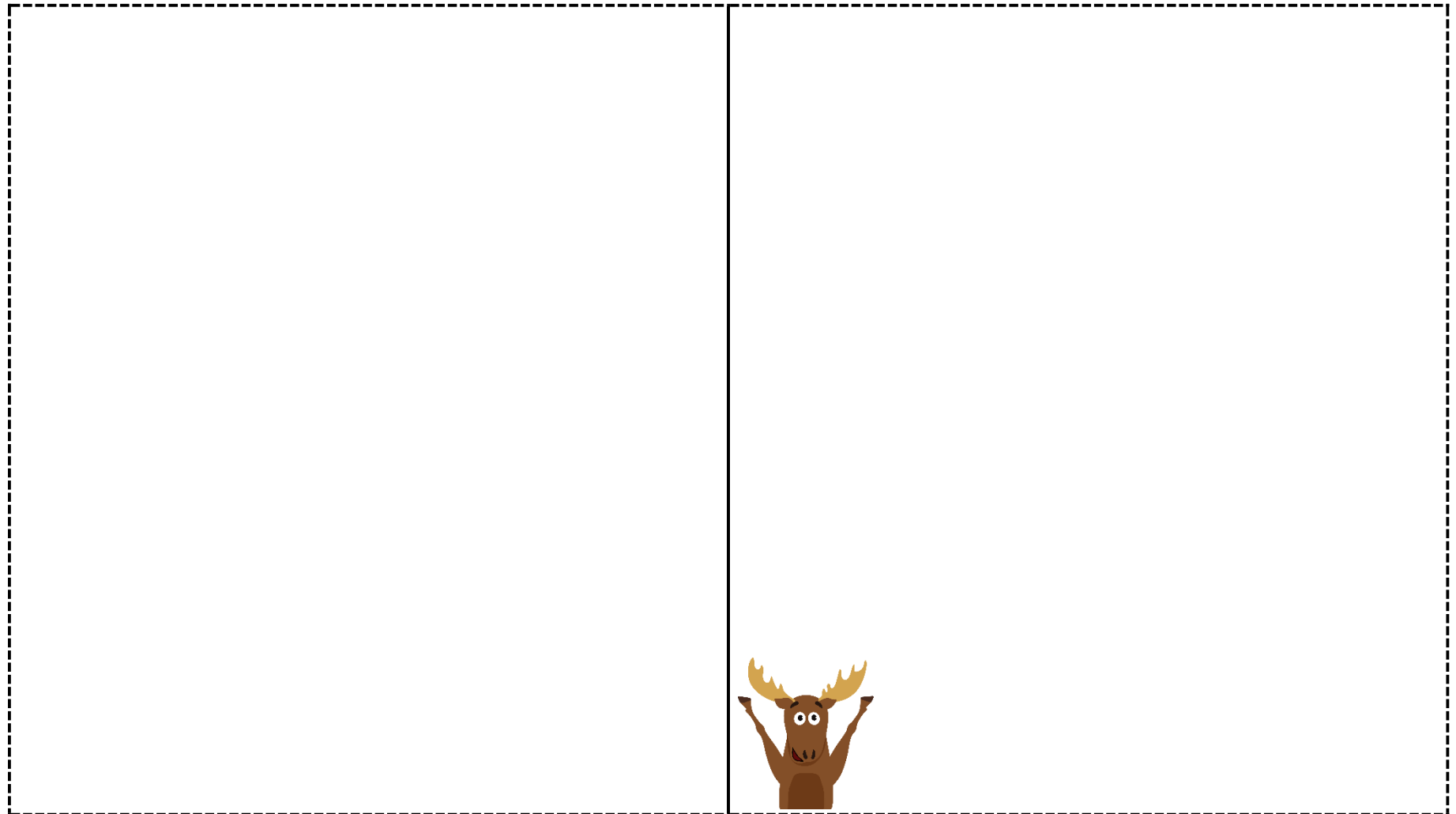
Source Name: Bales of Cotton Description: This photograph, taken between 1900 and 1907, shows horse-drawn wagons loaded with bales of cotton ready to be sold at market. The wagons are gathered in Court Square in the city of Montgomery, Alabama. Cotton grown in the southern states was purchased by textile manufacturers in northern states and shipped by rail to their factories. Factors of Production: This image shows an example of Land. Cotton was a raw material needed by New Hampshire's textile companies. It also shows Entrepreneurship: these wagons are part of the process that got the cotton from the land and labor of the enslaved people picking cotton in the south to the labor of the factories that would make textiles in the north.	Source: Logging at Amoskeag Falls Description: This image is a hand-colored lithograph made by John Badger Bachelder around 1856. This image shows men working on the Merrimack River at the Amoskeag Falls in Manchester, New Hampshire. In the foreground, a small group of workers are using a pulley to pry a log that has become stuck in the rocks. Logs were floated down rivers to sawmills. In the background are the buildings and factories of the growing mill city of Manchester. Factors of Production: This image shows Land: cut logs are the raw material for the lumber industry and the power of the river was a natural resource harnessed to move the raw material. It also shows Labor: many men were needed to cut and move logs to the sawmill.
Source: Weaving Machines Description: This photograph appears on a postcard, published by the F. E. Nelson Company of Manchester, NH. The image shows one of the weaving rooms at the No. 11 Mill of the Amoskeag Manufacturing Company. Factors of Production: This image shows Capital. The room is packed with weaving machines, an invention that increased the speed at which thread could be transformed into finished cloth. The company would have invested a great deal of money to purchase and maintain so many of these machines. In the foreground, a plaid-patterned cloth is in the process of being woven.	Source: Shoe Advertisement Description: This advertisement was printed in black ink on a large piece of cotton cloth between 1875 and 1890. It measures about 20 inches high and 13 inches wide. Factors of Production: This image shows Entrepreneurship. The Adolph Meyer Company of Boston sold their shoes through Jerry Gove, a shoe dealer who ran his business in Wilmot, New Hampshire. Once companies finished making their products, they needed to find ways to sell them. Instead of selling directly to the public, they might sell through a distributor or a retail store. Large advertisements would have been posted around town centers and in shop windows.



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Industry Booklet Template

Cut along the dashed lines. Stack the two pages and fold in half along the solid line to create a booklet with a front cover, six pages, and a back cover. Staple along the booklet's spine.





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Industry Booklet Labels

1. Cut along the dashed lines and paste your front and back cover labels on your booklet.
2. The first two pages of your booklet are for the "Meet the Industries" labels. Paste the labels in and then draw an illustration to represent that industry.
3. Label each of the remaining four pages with one factor of production.
4. Go to "Factors of Production Facts: Read and Sort" worksheet to fill in those pages.
5. If you have time, design an illustration for the front cover to catch the reader's interest and convey what's inside.

Front Cover: New Hampshire's Factors of Production & Historic Industries	Page 1: Meet the Industries: Textiles New Hampshire's first factories were textile mills . They were mainly located in the southern part of the state. Textiles are fabrics made from raw material like cotton or wool.
Page 2: Meet the Industries: Shoes Shoes were once made by a local <i>cordwainer</i> , with other people helping with tasks like cutting leather or punching holes. By 1900, most shoes in New Hampshire were made in factories located in the southern part of the state.	Page 3: Meet the Industries: Logging The logging industry started in New Hampshire's colonial days. But it grew into a big, factory-based industry by the second half of the 19th century. Lumber from the state's forests was used for building projects as well as for making paper.
Page 4: Factor of Production: Labor (hint: 4 facts)	Page 5: Factor of Production: Land (hint: 5 facts)
Page 6: Factor of Production: Capital (hint: 4 facts)	Page 7: Factor of Production: Entrepreneurship (hint: 5 facts)
Back Cover: Industry in Action	



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Factors of Production Facts: Read and Sort

Oh no! The machine that created this worksheet jumbled up all the facts. You need to read each statement carefully and decide which factor of production it matches. It might be a definition of a factor of production or an example of one of the four factors of production. Read, cut, sort, check your work, and then paste them in your booklet. Clues have been printed in bold to help you!

The human workers needed to make a product	The North Country, where New Hampshire was still mostly covered by forests in the 19th century, was the heart of the logging industry.
Nearly all of New Hampshire's early industries were located near rivers . The rivers powered the machines inside mills. Later, steam and hydroelectric power replaced water power.	The invention of different machines that could do different tasks (like weave cloth, cut leather, or turn timber into wood pulp) made production faster and easier.
The first people to work in textile mills were young women who left their farming communities. Beginning in the 1840s, immigrants from Europe joined the mill workforce. Immigrants worked in many of New Hampshire's industries, including shoe production and logging.	The natural resources needed to make a product
New Hampshire's textiles were sold around the world. Railroads took cloth from the mills to ports on the west coast where steamships took it to factories in other countries where it was used to make clothing.	Railroad lines connected New Hampshire to major cities in other states like Boston, Massachusetts, and Portland, Maine. Railroads made the movement of raw materials and finished products easier.
Workers in factories generally had a small set of specific jobs . Men often were given the more skilled jobs or management jobs.	Some factory owners built housing, schools, and playgrounds for their workers. This kept the workforce close to the factory.
Shoes were once made by a local cordwainer, with other members of the community helping with tasks like cutting leather or punching holes. By 1900, most shoes in New Hampshire were made in factories located in the southern part of the state.	Working in factories was often dangerous, with many machines operating close together. Children were often employed to do work that required moving in and around machines that adults were too large to do.



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In 1852, the Berlin Mills company built a huge sawmill powered by the 17-foot drop of a waterfall in Berlin. The Amoskeag Company built its own railroad, machine shops, dye plants, and power plants.	While wool for the textile mills could be found locally, cotton was shipped by rail from southern states.
The logging industry expanded from making timber products to paper products when the invention of the steam-powered printing machine created a greater demand for paper.	Advertisements placed by shop owners and distributors let consumers know about products made by different factories.
Shoe factories needed access to tanneries, where raw leather was processed into finished leather.	The human-made items used to make a product, like factories and machines
The people and systems that connect the other three factors and help them grow	



Industry Booklet: Factors of Production Facts Answer Key

Labor: The human workers needed to make a product

- Workers in factories generally had a small set of specific **jobs**. Men often were given the more skilled jobs or management jobs.
- The first **people** to work in textile mills were young women who left their farming communities. Beginning in the 1840s, immigrants from Europe joined the mill workforce. Immigrants worked in many of New Hampshire's industries, including shoe production and logging.
- **Working** in factories was often dangerous, with many machines operating close together. Children were often employed to do work that required moving in and around machines that adults were too large to do.

Land: The natural resources needed to make a product

- Nearly all of New Hampshire's early industries were located near **rivers**. The rivers powered the machines inside mills. Later, steam and hydroelectric power replaced water power.
- The North Country, where New Hampshire was still mostly covered by **forests** in the 19th century, was the heart of the logging industry.
- While **wool** for the textile mills could be found locally, **cotton** was shipped by rail from southern states.
- Shoe factories needed access to tanneries, where **raw leather** was processed into finished leather.

Capital: The human-made items used to make a product, like factories and machines

- The invention of different **machines** that could do different tasks (like weave cloth, cut leather, or turn timber into wood pulp) streamlined production.
- In 1852, the Berlin Mills company **built** a huge sawmill powered by the 17-foot drop of a waterfall in Berlin. The Amoskeag Company built its own railroad, machine shops, dye plants, and power plants.
- Railroad lines connected New Hampshire to major cities in other states like Boston, Massachusetts and Portland, Maine. **Railroads** made the movement of raw materials and finished products easier.

Entrepreneurship: The people and systems that connect the other three factors and help them grow

- Some **factory owners** built housing, schools, and playgrounds for their workers. This kept the workforce close to the factory.
- **Advertisements** placed by shop owners and distributors let consumers know about products made by different factories.
- The logging industry **expanded** from making timber products to paper products when the invention of the steam-powered printing machine created a greater demand for paper.
- New Hampshire's textiles were **sold** around the world. Railroads took cloth from the mills to ports on the west coast where steamships took it to factories in other countries where it was used to make clothing.



Name _____

Analyze It! Industry Photographs

1. Think about the last time you took or saw a photograph from our own time. Why was that photograph taken? Did it capture that moment in history and show what it is like to live today?

2. Now look at the primary source photograph. What do you think is happening in this photograph? Write three words with your first impressions.

3. Describe what you see in the photograph as if you were telling someone who couldn't see it.

Encounter





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Now that you've become familiar with the photograph, it's time to take a closer look at it.

4. First, look for a title or caption. Is there any information that will help you understand the photograph better? If so, summarize it.

5. What clues in the photograph itself might help you figure out where or when it was taken, or what's happening in it?

Investigate

6. Is this a formal or informal photograph? Is it a candid shot, or are the people posed?



7. Do you think this photograph was intended to be public or private? What do you think is the purpose of this photograph?



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Once you've learned everything you can from the photograph, it's time to build on your knowledge.

8. Now that you know more about the photograph, it's time to add to its story. Choose one of the following prompts and write your response in the space below. You will write your final version on the back cover of your Industry Booklet.

* What do you think happened one second after the photo was taken or one hour after?

OR

* Write a short story from the perspective of one of the people in the photograph.

Build





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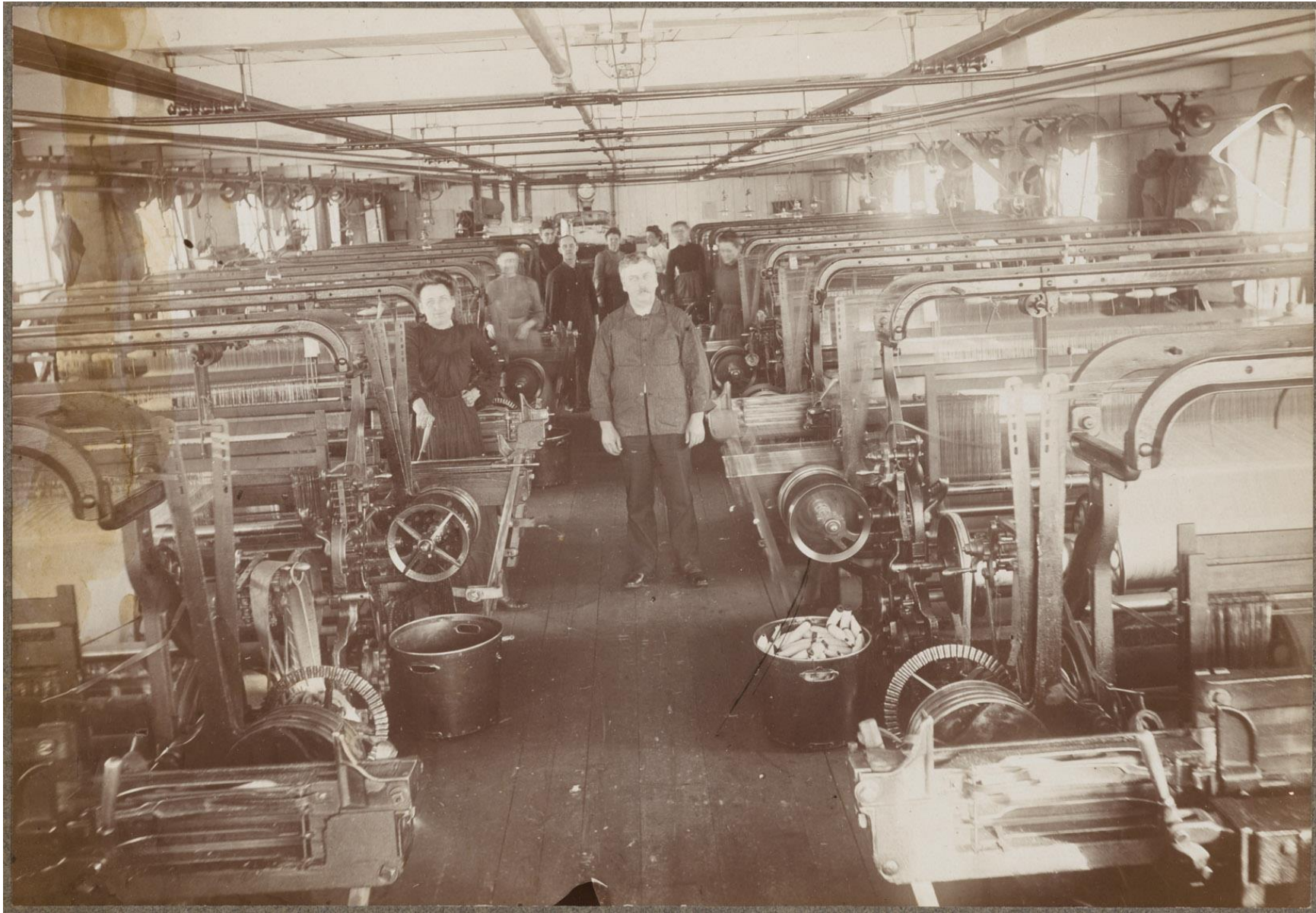


Processing Lumber, circa 1927–1950
Source: New Hampshire Historical Society

Industry Photographs



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Textile Factory Workers, circa 1900–1934
Source: New Hampshire Historical Society

Industry Photographs



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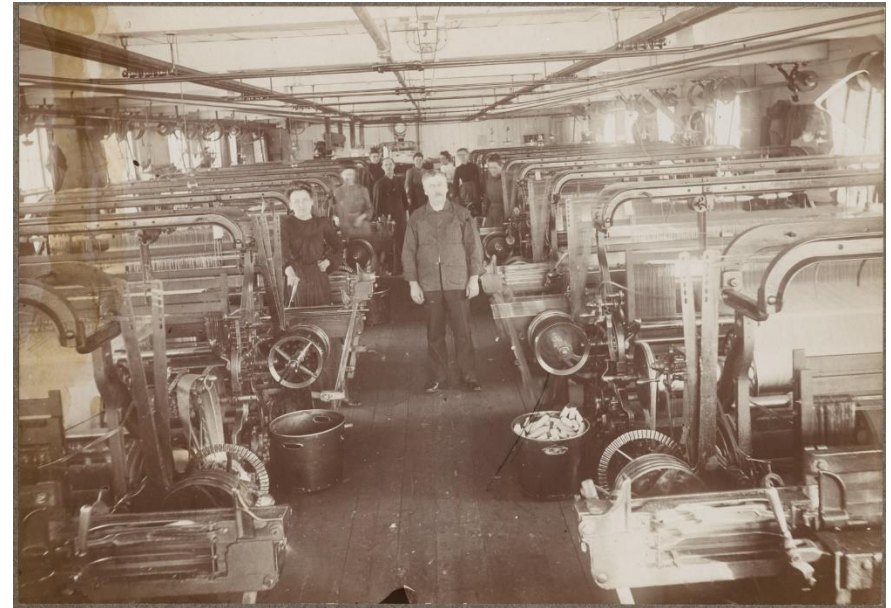


Pittsfield Shoe Company Workers, 1905
Source: New Hampshire Historical Society

Industry Photographs



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Upper left: Processing Lumber, 1927

Upper right: Textile Factory Workers, circa 1900–1934

Bottom left: Pittsfield Shoe Company Workers, 1905

All images from the New Hampshire Historical Society.



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Name _____

Plan Your 19th-century Business!

Business Name _____ Business Location _____

Labor: What kind of workforce will you need? What skills will the workers have? What towns will they come from?

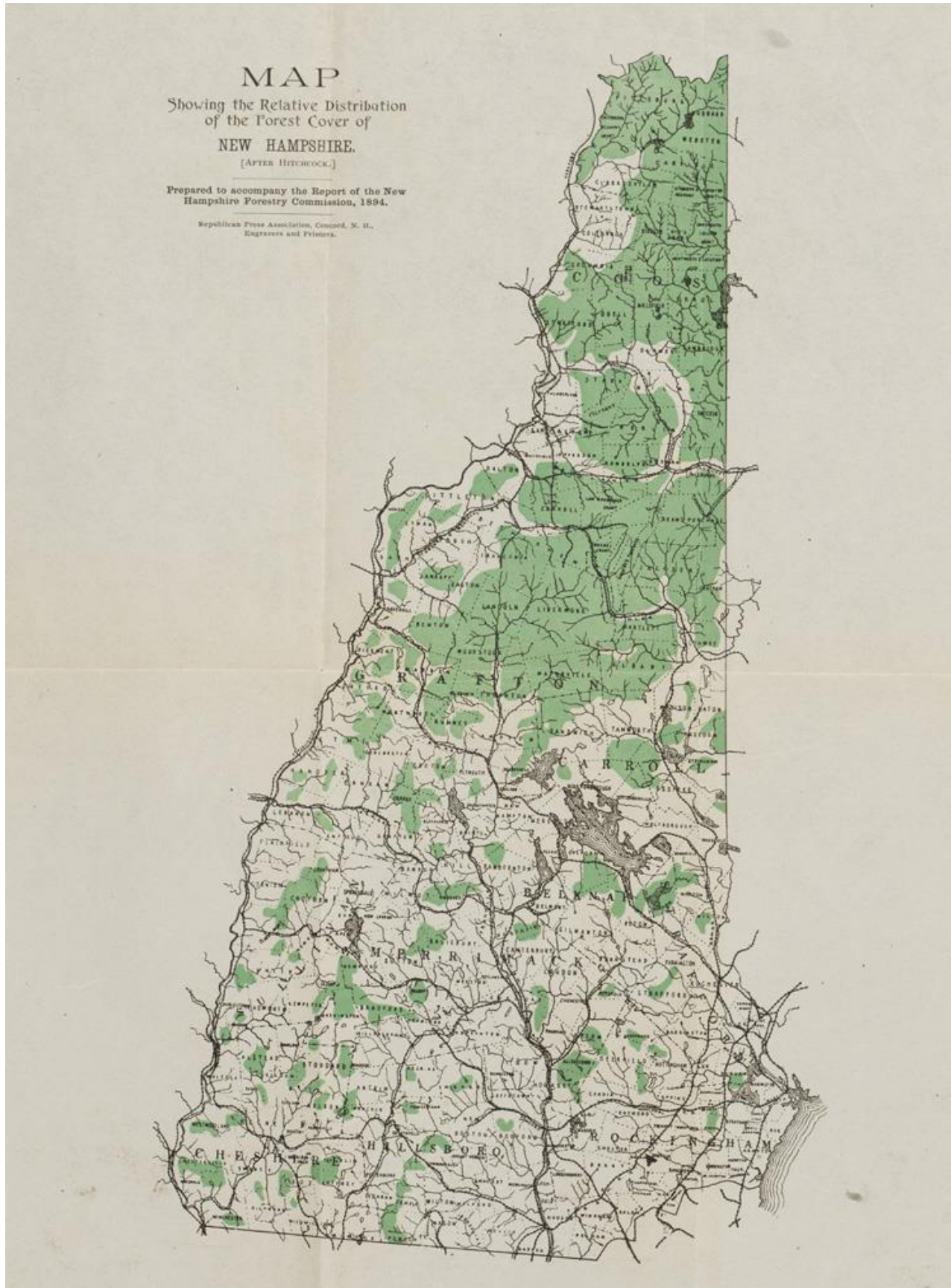
Land: What natural resources and other raw materials will your business need?

Capital: What kind of tools, machines, or factories will you need?

Entrepreneurship: How will you run your business? How will you move products? How will you let consumers know about your products?



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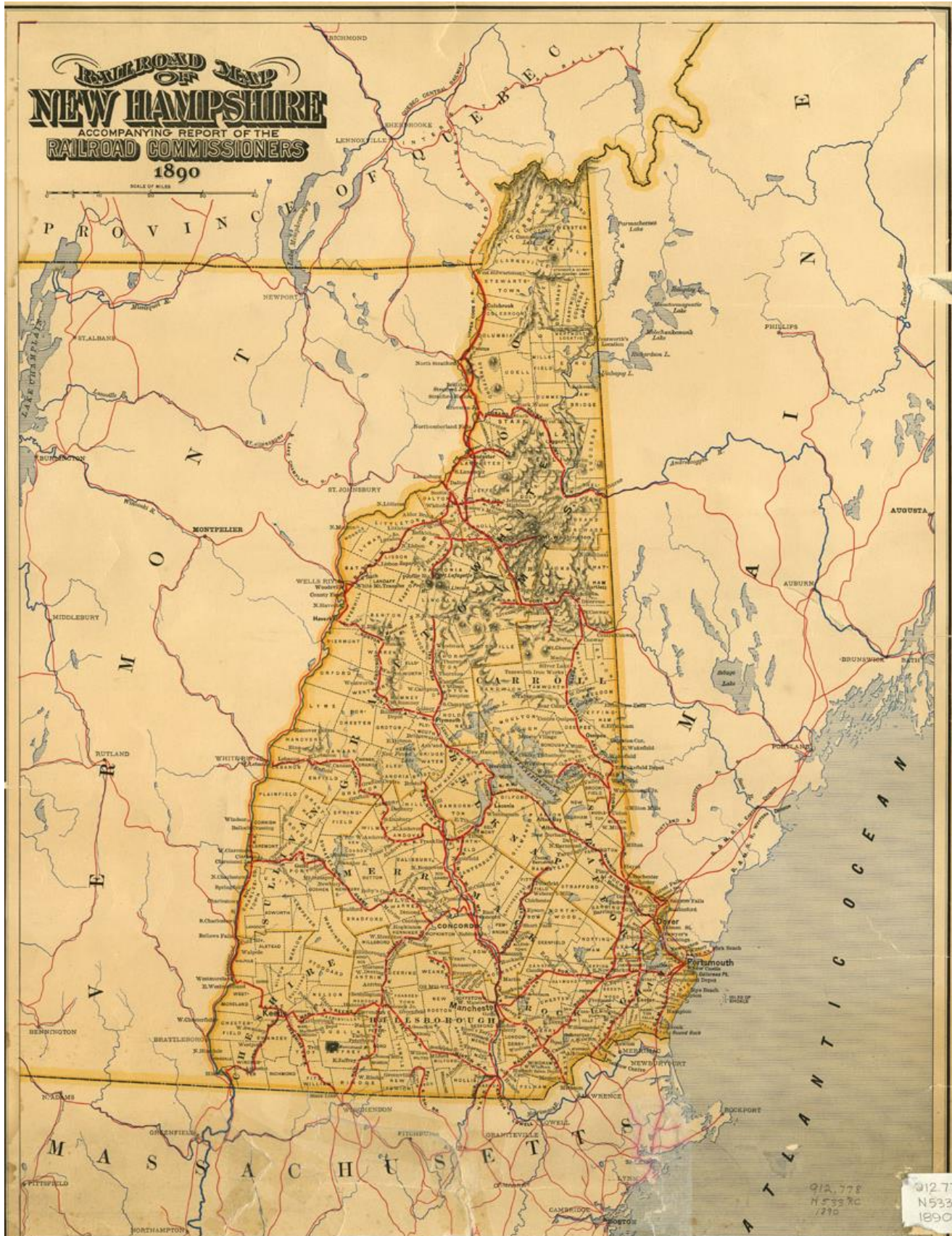


Forest Cover in 1894

Source: New Hampshire Historical Society



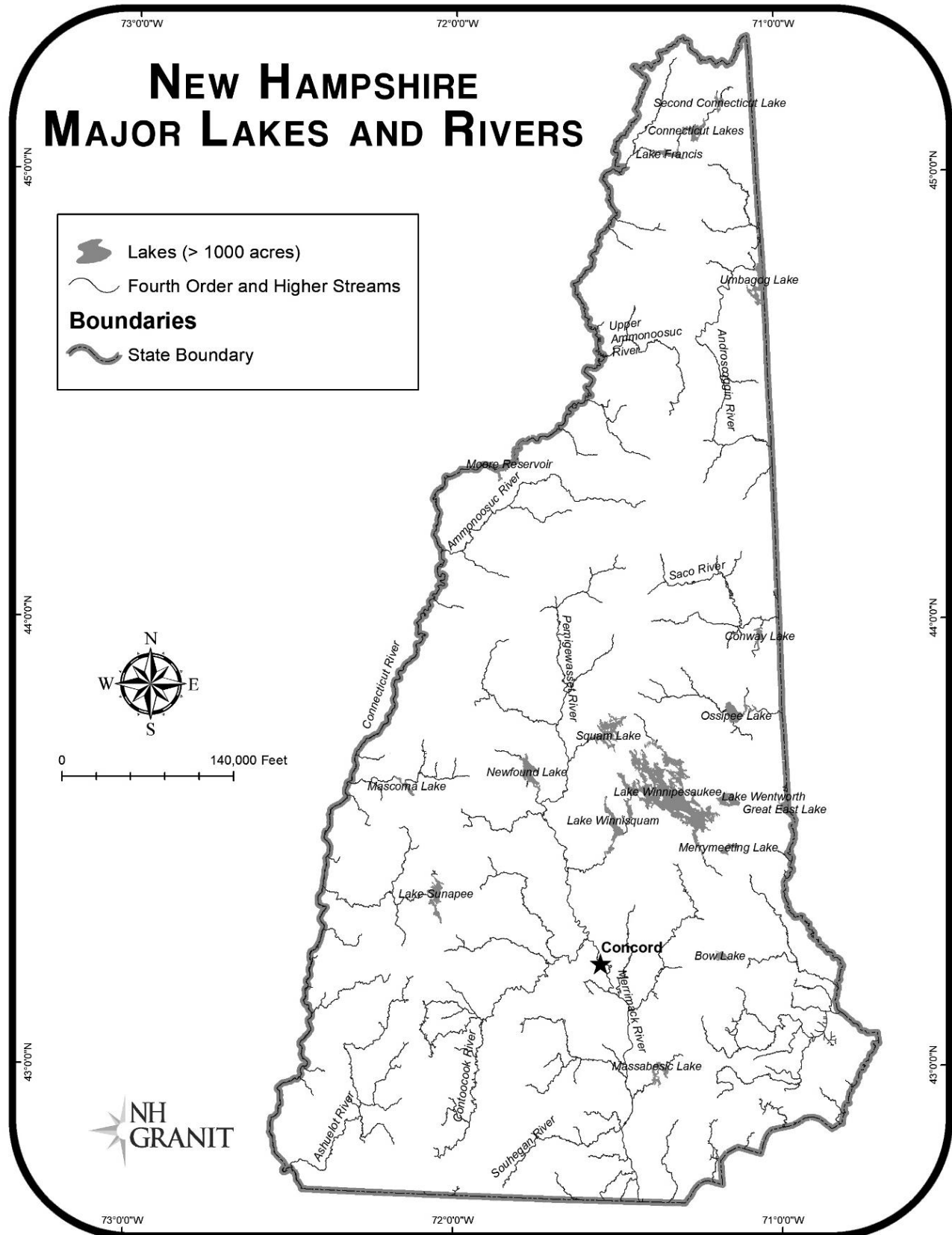
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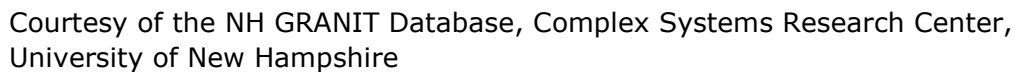
Railroad Map of New Hampshire 1890
Source: New Hampshire Historical Society



Lesson 11.3: New Hampshire's Industries



Courtesy of the NH GRANIT Database, Complex Systems Research Center,
University of New Hampshire





Name _____ Answer Key: SAMPLE

Plan Your 19th-century Business!

Business Name **North Country Forest Products**

Business Location **Berlin, New Hampshire**

Labor: What kind of workforce will you need? What skills will the workers have? What towns will they come from?

I will need a large number of people to do a variety of jobs. I will need people to cut down trees and move the logs to the river or over land by horse-drawn wagons. I will also need people who can process the cut trees. They will need to go through a saw mill to be trimmed to different lengths. There will also be people needed to turn excess wood into wood pulp. I will need people who can fix the machines, clean the factory floors, and transport finished products to towns by wagon or train. Most of my workers will probably live in Berlin, though some may come from Randolph or Gorham.

Land: What natural resources and other raw materials will your business need?

I will need access to a dense forest. I will also need a river nearby to move logs. The Androscoggin River runs through Berlin and Berlin is almost completely covered by forest. The trees we cut down will be used in two ways. We will cut them into planks for building projects. We will use the leftover pieces and use the new technology available to create wood pulp to supply paper companies.

Capital: What kind of tools, machines, or factories will you need?

I will need saws for cutting down trees in the forests and wagons and horses to pull those logs to the factory if the river is too high. I will need a storage building for wood waiting to be processed. A sawmill will be needed to cut the wood. I will also need a factory with wood pulp machines and vats. I will need many wagons that can transport wood pulp to the nearby paper factory.

Entrepreneurship: How will you run your business? How will you move products? How will you let consumers know about your products?

I am the president of the company, but I will need managers to run each of the different stages of my business: cutting the trees, sawing the trees into planks, and churning the extra wood into pulp. I will sell my planks directly to construction companies who have projects in larger cities. I will sell my wood pulp to companies that make paper. We will not have our own rail station so I will need to arrange with a rail line to make deliveries.