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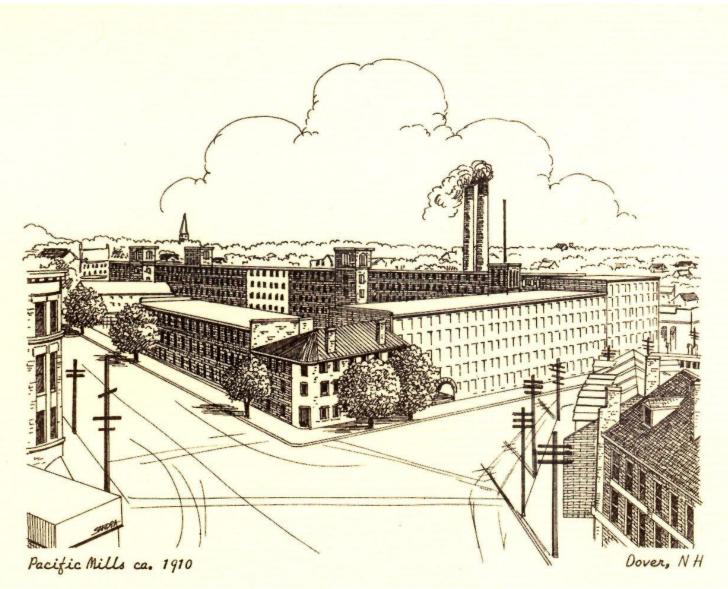
Lesson 11.6: Modernization



Source 1: Women Marching in Concord, 1915 Source: New Hampshire Historical Society





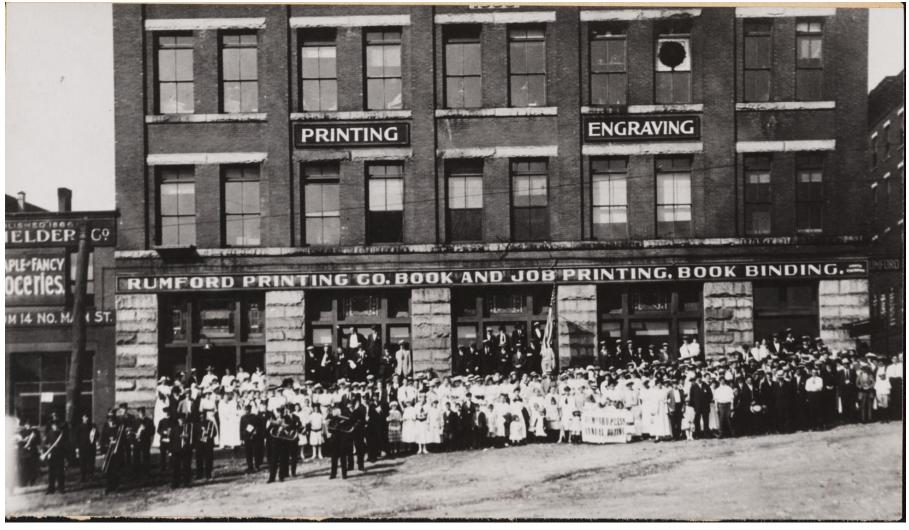


Source 2: Dover in 1910 Source: New Hampshire Historical Society



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Lesson 11.6: Modernization



Source 3: Printing Company Employees, 1915 Source: New Hampshire Historical Society





Source 4: Westinghouse Electric Advertisement, 1914 Courtesy New-York Historical Society Library



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Name _____

Modernization in New Hampshire: Identify It!

What evidence do you see of modernization in each of the images of life in the early 20th century?

Source	Evidence of Modernization
Source 1: Women Marching in Concord, 1915	
Source 2: Dover in 1910	
Source 3: Employees Outside Printing Company, 1915	
Source 4: Westinghouse Electric Advertisement, 1914	



Name <u>Answer Key: Possible Responses</u>

Modernization in New Hampshire: Identify It!

What evidence do you see of modernization in each of the images of life in the early 20th century?

Source	Evidence of Modernization
Women Marching in Concord, 1915	Tall buildings, telephone poles and wires, car
Dover in 1910	Factory buildings, telephone poles and wires, factory smoke
Employees Outside Printing Company, 1915	Urban building construction, modern outfits, people posed for a photograph, telephone poles and wires
Westinghouse Electric Advertisement, 1914	Appliances needing electricity, including toasters, iron, sewing machine, coffee makers; display of lighting; and words about electricity



Name

Modernization in New Hampshire: Experience It!

Station A: Electricity

Since the early 20th century, people have relied on electricity. It has powered factories, buildings, and homes. What changes if you have no power because of a storm? Think of activities you do every day that use electricity and fill in the chart below.

Activity done with electricity	How could you do this activity without electricity?	What are the advantages of using electricity for this activity?
What are three activities you d	lo that are impossible without electricity?	
What are three activities you a	to that are impossible without electricity:	



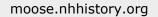
Name

Modernization in New Hampshire: Experience It!

Station B: The Telephone

The telephone was one key to society's modernization. Why? How did the telephone change our world? Read the information with the images and fill in the chart below.

Effects of the telephone	How do you think the telephone caused this effect?
New Hampshire families, homes, and sowns became safer.	
Businesses grew and worked more easily with other businesses across the state, with other states, and even around the world.	
Nomen's social and work opportunities were expanded.	
People were able to do many activities more quickly and efficiently.	
Families stayed closer even if people noved away from each other.	
information is shared more easily and quickly.	





Name

Modernization in New Hampshire: Experience It!

Station C: Railroads and Time Zones

Part A: Development of railroads in New Hampshire happened at the same time as the Industrial Revolution. Consider the following effects that the train system had and identify whether each is a positive or negative effect—or both, then say why.

Effect	Positive or Negative or Both? Why?
Businesses grew because they could get raw materials more easily and send off their products.	
Building the railroads destroyed some natural areas and animal habits.	
Small, local businesses had to compete with other businesses from across the state and nation.	
People could travel more easily and quickly for fun or for work.	
Mail and other products could be delivered more quickly.	
Many jobs were created working on building the railroads and operating the trains.	



Part B: As the railroads grew, more and more people and goods traveled on them. They traveled across the state and even across the country! For a long time, towns and cities had set their own time based on the sun. Why would this be a problem for railroads?

In order to help the trains run on time and make sure everyone knew when a train was coming and going, the railroad companies created four time zones across the United States in 1883. These time zones separated the country into four parts and told each part what time it was there. Look at the map to answer the following questions.

- 1. As you move east to west, does the time get earlier or later? By how much?
- 2. What is the difference in time from the east coast to the west coast?
- 3. If it is 10:00 A.M. in Chicago, what time is it in Concord?
- 4. If it is 3:00 P.M. in Washington, D.C., what time is it in El Paso?
- 5. If it is 9:00 P.M. in Seattle, what time is it in Houston?
- 6. Make up your own question, using questions 3 6 as a model, then have a friend answer it.

If it is ______ in _____, what time is it in ______?

Bonus: Alaska and Hawaii weren't part of the United States until 1959. Where are Alaska and Hawaii? What do you think happened to U.S. time zones when they became part of the country?





Name

Modernization in New Hampshire: Experience It!

Station D: Leisure Time

The Industrial Revolution had a big impact on people's lives. When people lived on farms, they worked whenever it was needed, but workers in factories had set times at which they needed to be at work. This change meant that for people working in factories their days were separated into time for working and time for family and fun. The time for family and fun was called leisure time.

As the cities got bigger, there were more fun things to do in them like eating at restaurants, visiting museums, going to the theater, and even rides and games at amusement parks. Plus, people in New Hampshire enjoyed going to the mountains, rivers, lakes, and the ocean for outdoor activities.

Now it's your turn! Imagine you work in a factory six days a week and you want to have a great day off. Use the historical sources of real people enjoying leisure time during the Industrial Revolution to spark your imagination. What will you do?

Write a journal entry for how you spend your day off. Where would you go? What activities would you do? How would you get there? Who would go with you?

Date:	
 	/



Enco

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Name

Modernization in New Hampshire: Experience It!

Station E: Analyze It! Standardized Currency

1. Select two sources from the four images of currency. Which two did you pick? _____and _____

2. What are your first impressions of the currency? Choose three words for each image.

Source	Source

3. How would you describe each one to someone who couldn't see them? Look closely at them.

unter	Source	Source	I
Ϋ́			I
			I
			I
			I



Investigate

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

4. From the time the United States became a country in 1783 to the mid-20th century, there were many problems with currency (money). One of the problems was that each state had their own currency, and sometimes banks would print their own currency too. What can you tell about these currencies? Answer the questions below for each of your two sources.

	Source	Source
How much is it worth?		
Where it is from?		
When was it printed?		

5. Now compare the older currencies with the modern \$1 bill. Where is it from? When was it printed?

6. What does the modern \$1 bill have that the older currencies don't?





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

7. The barter system is when people exchange goods or services to get what they need. For example, someone might give eggs from their chickens to get wool from someone else's sheep. How is having money to exchange easier than the barter system?

8. Think about the positives and negatives of each state having their own currency. Imagine New Hampshire, Vermont, Maine, and Massachusetts all had different state money. Why would that be easier? Why would it be harder?

9. What do you think is better for people and for the economy? States and banks printing their own money or the national government in Washington, D.C., printing all the money? Why?





Station B: The Telephone

tele= distance, from afarphone= soundtele+phone= sound from a distance

Alexander Graham Bell invented the telephone. His goal was to send 'vocal sounds' over wire—a revolutionary thought! The first telephones had an earpiece to listen to, a place to speak into, and a ringer. In order to talk to someone, you had to be connected by telephone wires. Notice the telephone pole in the picture above bringing wires to the house.

At first, telephone lines weren't private because it was expensive to run telephone poles and wires. The whole town had only a few lines, which meant when you picked up your earpiece, you could hear other people on the line. Sometimes you could hear other people's conversations! And sometimes their conversations might take a long time and you had to wait to make your call. You had to be careful what you said, though—your neighbors could listen to your conversation too!



Wall Telephone, 1906 Source: New Hampshire Historical Society



Hopkinton Village Road, 1889 Source: New Hampshire Historical Society



Station B: The Telephone

Look at the image of the phone below. How could you call someone when there aren't any numbers on the telephone?

When you picked up the phone, a town operator would say "Hello? Can I help you?" You would tell them who you wanted to talk to, and they would move the wires in the telephone office to connect you. At first, operators were young men, some as young as 14, but they were too playful and even pulled pranks on people trying to make calls!

Soon, nearly all operators were women, many of whom were working outside the home for the first time. Operators were crucial community members. They not only connected people for their calls but also made sure emergency services went to the right place and answered many, many questions from the public about all sorts of things.



Telephone Operators, 1936 Courtesy of *Bell Telephone Quarterly*, AT&T from the Internet Archive



Desk Telephone, circa 1910–1930 Source: New Hampshire Historical Society



Station B: The Telephone

As time went on, the telephone spread all over the nation and the world. Soon, telephones had numbers on them so you could make calls yourself, although operators continued to be available to help the public. Public phone booths became available so that you could call someone even if you weren't at home—although you had to have coins with you to pay for the call!

The way phones looked and worked changed through the years. On a rotary phone, you put your finger in the hole of the number you want, then move the dial around to the silver notch. You continue doing that for each number. When push-button phones were developed, everyone agreed they were easier!



Rotary Telephone, 1950–1960 Source: New Hampshire Historical Society





Public Telephone Booth, 2012 Source: Wikimedia Commons

Push Button Telephone, 1980 Source: Wikimedia Commons



Station B: The Telephone

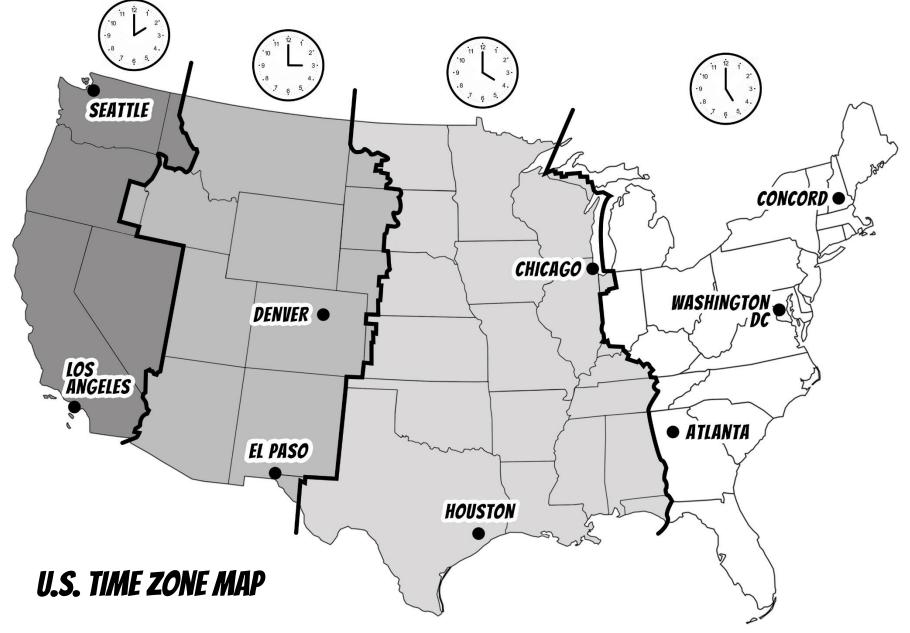
People thought wireless communication was possible in the 1800s and tried using light waves to communicate across distances. But it wasn't until the 1980s that wireless communication was available to people. It uses radio waves. For the first time, people could talk to someone else without being connected by a wire! Did you know that Alexander Graham Bell, the inventor of the telephone, thought that "Ahoy!" should be the greeting when you answer the phone? It is said that Thomas Edison preferred "Hello," and everyone agreed with him. What do you think? 2 3 4 5 6 789 * 0 # MR C 🔍 H+ 1 💌 0 - -3 ** 5 (h) 6 mm 8 ter 9 Mobile Telephones, 1983-2004 Source: Wikimedia Commons



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Lesson 11.6: Modernization

Station C: Railroads

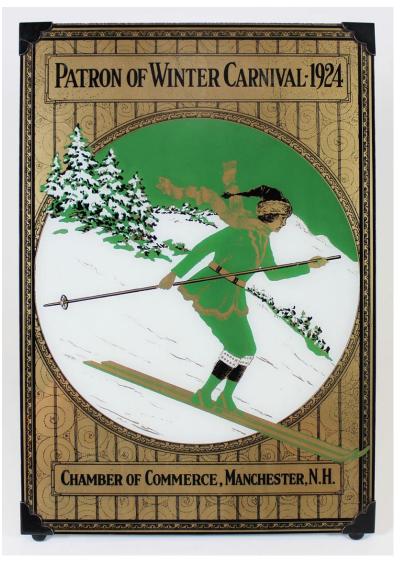




Station D: Leisure Time



Hampton Beach and Casino, 1904–1909 Source: New Hampshire Historical Society



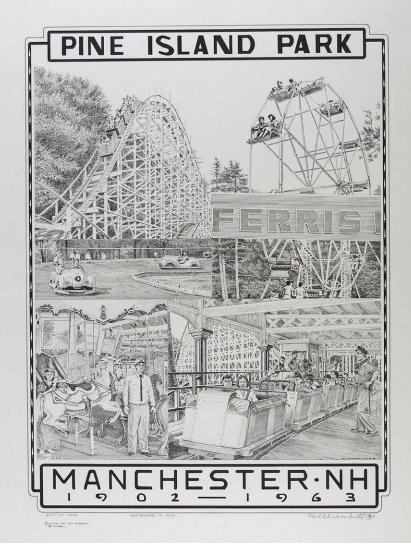
Winter Carnival Poster, 1924 Source: New Hampshire Historical Society



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Lesson 11.6: Modernization

Station D: Leisure Time





Electric Trolley Car, 1910 Source: New Hampshire Historical Society

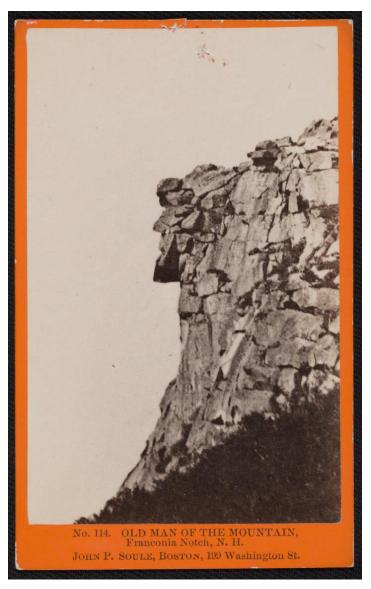
Pine Island Park, 1902–1963 Source: New Hampshire Historical Society



Station D: Leisure Time



Artist in the Country, 1869 Source: New Hampshire Historical Society



Old Man of the Mountain carte de visite, 1850–1904 Source: New Hampshire Historical Society



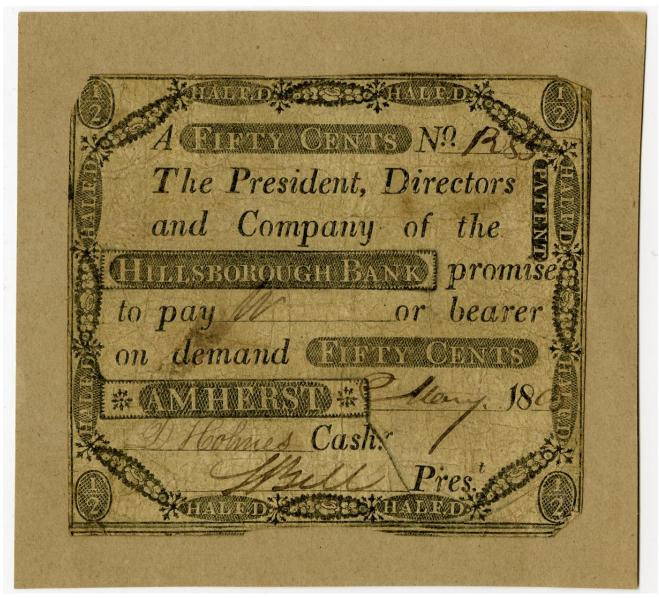
Station E: Standardized Currency



Source 1

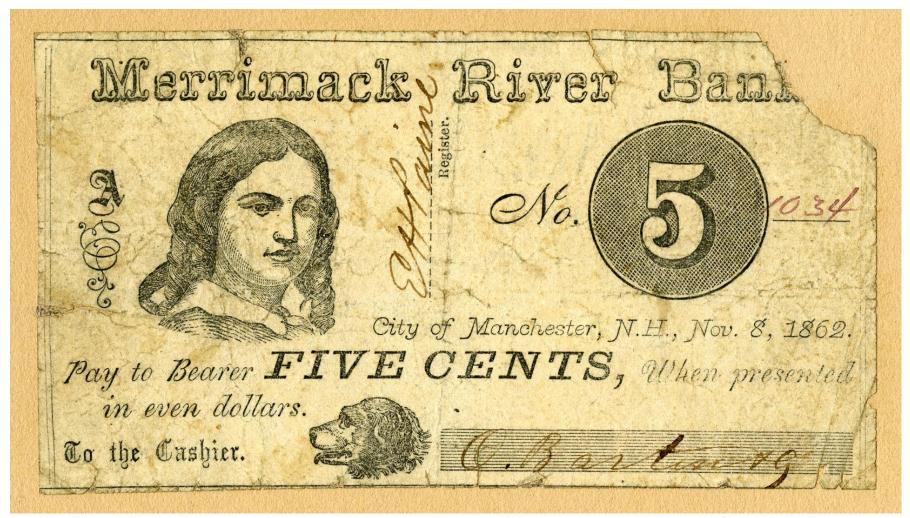


Station E: Standardized Currency





Station E: Standardized Currency



Merrimack River Bank Currency, 1862 Source: New Hampshire Historical Society Source 3



Station E: Standardized Currency



Piscataqua Exchange Bank Currency, 1844–1863 Source: New Hampshire Historical Society

Source 4



Station E: Standardized Currency



Federal Reserve Currency, 2009 Source: Wikimedia Commons



Name

Answer Key: Possible Responses

Modernization in New Hampshire: Experience It!

Station A: Electricity

Since the early 20th century, people have relied on electricity. It has powered factories, buildings, and homes. What changes if you have no power because of a storm? Think of activities you do every day that use electricity and fill in the chart below.

more consistently cold safer because it keeps ling
l easier to call, text, or on. Safer too if I'm ulance, police or fire.
are brighter, easier, afer than candles
ter and is safer
i



Name

Answer Key: Possible Responses

Modernization in New Hampshire: Experience It!

Station B: The Telephone

The telephone was one key to society's modernization. Why? How did the telephone change our world? Read the information with the images and fill in the chart below.

What does the word "telephone" mear		
Sound from a distance.		
Effects of the telephone	How do you think the telephone caused this effect?	
New Hampshire families, homes, and towns became safer.	People could call for emergency services like fire, police, and ambulances. In the past they had to go to the police or fire station to get help. This means that emergency services came much more quickly.	
Businesses grew and worked more easily with other businesses across the state, with other states, and even around the world.	Businesses could communicate with more easily with customers, suppliers, and other offices. This meant that business happened faster and more cheaply and it grew the economy.	
Women's social and work opportunities were expanded.	The telephone let women communicate more regularly with people outside the home and maintain stronger relationships with friends and family. Women also worked outside the home as telephone operators so their work opportunities were expanded.	
People were able to do many activities more quickly and efficiently.	People could call about a grocery order or question about a business' opening or closing hours instead of having to go to the place they wanted to talk to. This meant that time was saved for people and they do other things with that time.	
Families stayed closer even if people moved away from each other.	People could communicate with family members who had moved far away. They could hear loved ones' voices instead of just writing letters, and tell each other more about their lives. This meant that relationships stayed stronger which is positive for society.	
Information was shared more easily and quickly.	Sharing more information means more knowledge for everyone. This creates a stronger nation because businesses, families, and the government know more about the world.	





Name Answer Key: Possible Responses

Modernization in New Hampshire: Experience It!

Station C: Railroads and Time Zones

Part A: Development of railroads in New Hampshire happened at the same time as the Industrial Revolution. Consider the following effects that the train system had and identify whether each is a positive or negative effect—or both, then say why.

Effect	Positive or Negative or Both? Why?
Businesses grew because they could get raw materials more easily and send off their products.	Positive because if businesses grow then people have more money which means the economy is stronger.
Building the railroads destroyed some natural areas and animal habits.	Negative because hurting the environment is bad even if it's for progress.
Small, local businesses had to compete with other businesses from across the state and nation.	Both negative and positive. More competition between businesses is good for people because then maybe prices will go down. But if a small, local business has to compete with more businesses from across the nation then it might fail because it can't keep up.
People could travel more easily and quickly for fun or for work.	Positive because it's fun to see more places! Also positive because if people are traveling more easily for work it's good for the economy.
Mail and other products could be delivered more quickly.	Positive because faster mail service means people are getting what they need more quickly.
Many jobs were created working on building the railroads and operating the trains.	Positive because more jobs is good for people and the economy.



Part B: As the railroads grew, more and more people and goods traveled on them. They traveled across the state and even across the country! For a long time, towns and cities had set their own time based on the sun. Why would this be a problem for railroads?

If a train was traveling from one place to another, but those places had different times, people in the place it was going to wouldn't know when the train was arriving. They wouldn't be able to be at the station in time to catch the train or make a schedule for trains to arrive and depart safely.

In order to help the trains run on time and make sure everyone knew when a train was coming and going, the railroad companies created four time zones across the United States in 1883. These time zones separated the country into four parts and told each part what time it was there. Look at the map to answer the following questions.

7. As you move east to west, does the time get earlier or later? By how much?

It gets earlier by one hour each time zone as you move east to west.

8. What is the difference in time from the east coast to the west coast?

There is a different of three hours from the east coast to the west coast.

9. If it is 10:00 A.M. in Chicago, what time is it in Concord?

9:00 A.M.

10. If it is 3:00 P.M. in Washington, D.C., what time is it in El Paso?

1:00 P.M.

11. If it is 9:00 P.M. in Seattle, what time is it in Houston?

7:00 P.M.

12. Make up your own question, using questions 3 – 5 as a model, then have a friend answer it.

If it is ______ in _____, what time is it in _____?

Bonus: Alaska and Hawaii weren't part of the United States until 1959. Where are Alaska and Hawaii? What do you think happened to U.S. time zones when they became part of the country?

Alaska and Hawaii are more western than California, Oregon, and Washington state. They would have had to expand the time zones that were in the U.S.



Date: Sunday, June 21, 1910



Lesson 11.6: Modernization

Name <u>Answer Key: Possible Responses</u> Modernization in New Hampshire: Experience It!

Station D: Leisure Time

The Industrial Revolution had a big impact on people's lives. When people lived on farms, they worked whenever it was needed, but workers in factories had set times at which they needed to be at work. This change meant that for people working in factories their days were separated into time for working and time for family and fun. The time for family and fun was called leisure time.

As the cities got bigger, there were more fun things to do in them like eating at restaurants, visiting museums, going to the theater, and even rides and games at amusement parks. Plus, people in New Hampshire enjoyed going to the mountains, rivers, lakes, and the ocean for outdoor activities.

Now it's your turn! Imagine you work in a factory six days a week and you want to have a great day off. Use the historical sources of real people enjoying leisure time during the Industrial Revolution to spark your imagination. What will you do?

Write a journal entry for how you spend your day off. Where would you go? What activities would you do? How would you get there? Who would go with you? Today was my first day with no work in a week. It was a beautiful, sunny day, so I decided to take a trip up to the New Hampshire White Mountains. I packed a lunch and a jar of water and walked down to the station to get the train. Lots of people were doing the same thing! The train was cramped and it was warm inside, but we opened the windows and it was a beautiful trip. I hiked all day until it was time to get the train home. I got to the top of Mount Lafayette! My feet were very tired. It was pretty late by the time I arrived back. I am so glad there were street lights so I could walk safely from the train station to my apartment. After cooking dinner and reading a little by my small lamp, I'm writing before going to sleep. I'm not going to stay up late because tomorrow is Monday and I have to be at work in the mill at 6:00 a.m. I think that the next time I have a day off I will stay in the city. There is so much to do and see here! I do miss my family back home on the farm, but I will call them soon to see how everyone is doing.



Encounter

Name Answer Key: Possible Responses

Modernization in New Hampshire: Experience It!

Station E: Analyze It! Standardized Currency

1. Select two sources from the four images of currency. Which two did you pick? <u>1</u> and <u>3</u>

2. What are your first impressions of the currency? Choose three words for each image.

ource1	Source <u>3</u>	
Did	Torn	
Square	Old	
Fancy	Pictures	

3. How would you describe each one to someone who couldn't see them? Look closely at them.

Source <u>1</u>	Source <u>3</u>
It is square and has a lot of fancy writing. There is a border with words in it. In the middle is a circle with a picture of what could be a mountain? In the middle is also typed words and a signature. I think it says "FOUR DOLLARS" in places.	It is a rectangle and says "Merrimack River Bank" at the top. There is a circle with "5" in it and a head of a girl and a bear or dog. There is some fancy writing and it says "FIVE CENTS."



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Lesson 11.6: Modernization

Investigate

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

4. From the time the United States became a country in 1783 to the mid-20th century, there were many problems with currency (money). One of the problems was that each state had their own currency, and sometimes banks would print their own currency too. What can you tell about these currencies? Answer the questions below for each of your two sources.

	Source <u>1</u>	Source <u>3</u>	
How much is it worth?	Four dollars	Five cents	
Where it is from?	I think the United Colonies	Manchester, N.H.	
When was it printed?	The caption says 1776	The caption says 1862	

5. Now compare the older currencies with the modern \$1 bill. Where is it from? When was it printed?

It is from the United States of America and was printed in 2009.

6. What does the modern \$1 bill have that the older currencies don't?

A picture of George Washington, and it says "Federal Reserve Note." It has more writing,

numbers and codes. It says "This note is legal tender for all debts, public and private."



Build

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

7. The barter system is when people exchange goods or services to get what they need. For example, someone might give eggs from their chickens to get wool from someone else's sheep. How is having money to exchange easier than the barter system?

It's easier because what if I had what my neighbor wanted but they didn't have what I wanted? Then we couldn't trade. But if we had money I could give them what they wanted and they could give me money.

8. Think about the positives and negatives of each state having their own currency. Imagine New Hampshire, Vermont, Maine, and Massachusetts all had different state money. Why would that be easier? Why would it be harder?

It would be easier because each state could print and design their own money. It would be harder because you would need different money for each different state, and these are small states. People today move back and forth between them a lot. It would be really hard if I needed different money whenever I went to Maine or Vermont or Massachusetts. Businesses wouldn't accept my money and I would have to exchange it.

9. What do you think is better for people and for the economy? States and banks printing their own money or the national government in Washington, D.C., printing all the money? Why?

I think it is better for the economy if the government in Washington, D.C. prints money because then everyone will use the same money. This way, if you travel outside of your state, the money was still accepted and it was easier to do business. People could buy and sell goods more easily and had an easier time traveling as well. Plus, everyone knows how much one dollar was worth and you didn't have to worry if a Maine dollar was worth more or less than a New Hampshire dollar. If people are traveling and buying and selling goods more, that is better for the economy as well.





Names

Drawing Modernization

How can you represent the modernization that occurred as part of the Industrial Revolution in a drawing? Have your packet ready to use it to answer the questions below.

Look through the station packet. What inventions, ideas, or activities about modernization from each station could be in the drawing?

Station B: The Telephone	Station C: Railroads and Time Zones	Station D: Leisure Time	Station E: Standardized Currency
	Station B: The Telephone		

Now think about the drawing. How could you show modernization? The drawing should be of more than one thing; it should be a drawing of a city or home scene with details and many ideas, activities, and inventions. Write your ideas below and then talk with your group.





Name ____

Modern Invention Advertisement

With electricity becoming more widely available in New Hampshire homes following the Industrial Revolution, there were many new inventions people could buy and use in their homes. Choose one of the following inventions and create an advertisement for that product. Consider the ways in which these products improved or changed how the same tasks were completed previously. Possible choices: vacuum cleaner, air conditioning, electric washing machines, hair dryer, or the pop-up toaster!



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Name

Timeline of New Hampshire Modernization

Create a timeline of New Hampshire modernization. The earliest date is 1869 and the latest date is 1925 so follow the directions below.

- Make a long line and draw seven marks on it, evenly spaced. The first mark should be at the beginning of the line and the last mark at the end of the line.
- Label the marks with years, jumping by 10 years each mark. Start with 1865, then 1875, and so on until the last mark says 1925.
- Plot the events on the line according to their years. If a date falls between two marks, estimate the spacing. Check dates off as you add them.
- Include a title for your timeline and answer the questions below!

Find dates for these events on the "Moose on the Loose" timeline:

- □ Transcontinental railroad completed
- □ Cog railway built
- □ Light bulb invented
- □ Wright brothers' first flight
- □ Radio becomes popular

Include these dates as well:

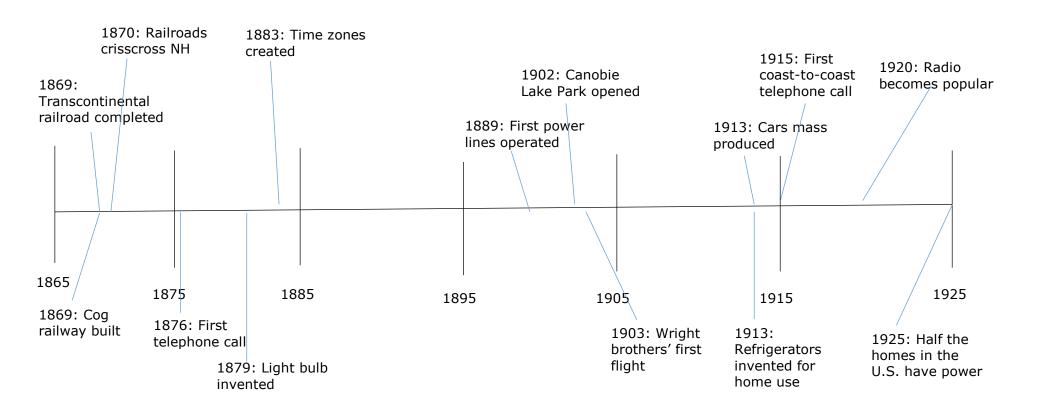
- □ 1870: Railroads crisscross New Hampshire
- □ 1876: First telephone call
- □ 1883: Time zones created
- □ 1889: First power lines operated
- □ 1902: Canobie Lake Park opened
- □ 1913: Refrigerators invented for home use
- □ 1913: Cars mass produced
- □ 1915: First coast-to-coast telephone call
- □ 1925: Half the homes in the United States have power

What surprised you about the timeline of modernization?

What two events do you think represent modernization the most?



New Hampshire Modernization



What surprised you about the timeline of modernization?

It surprised me that so many important things were happening around the same time.

What two events do you think represent modernization the most?

I think "1889: First power lines" represents modernization because power was the base of everything. Also, "1883: Time zones" because they were one of many effects of the railroad.



Name _____

Write a Letter to the Past

Modernization did not happen at the same time across our society because the cities experienced modernization before small towns and the countryside. Imagine you are living in a city during the Industrial Revolution and are writing a letter back to your grandparents who live on the farm. Tell them all about "modern" life in the city. Do you go to school? Do you have a job outside the family? Does your family have electricity and a telephone and a car? What rights do people of color, women, and children have and what rights are they fighting for? Careful—they might have a hard time understanding modern life!

Date: _____

Dear _____



Name Answer Key: Possible Response

Write a Letter to the Past

Modernization did not happen at the same time across our society because the cities experienced modernization before small towns and the countryside. Imagine you are living in a city during the Industrial Revolution and are writing a letter back to your grandparents who live on the farm. Tell them all about "modern" life in the city. Do you go to school? Do you have a job outside the family? Does your family have electricity and a telephone and a car? What rights do people of color, women, and children have and what rights are they fighting for? Careful—they might have a hard time understanding modern life!

Date: Friday, August 5, 1915

Dear <u>Grandma,</u>

I'm not sure you would believe what my life is like, but I wish I could show you how our family lives! We live in a big city because of Daddy and Mommy's jobs working in a factory. A factory is a huge building where they help make lots and lots of cloth on huge machines. The machines use power to move by themselves! I go to school like all of the other children in the city where we are taught math and science and reading and writing so that one day we can have jobs, too. Sometimes I work in the factory to earn some money to help pay for groceries. I sweep up all the lint and little pieces of thread from around the loud machines.

Our family does not grow any of our own food— we buy it all at a store. What is it like to grow your own food? What if there isn't enough rain? In the city, there are always lots of people around, and it is very noisy and smelly, especially where the horses stand. There is always lots to do. We can go to the park to play, or take a train to another city, and once we rode in our friend's car! A car is a carriage that doesn't need a horse to go. We took a trip to the ocean where we played on the beach.

I am writing you a letter, but actually maybe soon I won't even have to send you a letter to tell you about my day. I could call you on a telephone! The telephone is a box in our house that sends sounds the sound of my voice over wires into other people's houses so you can hear me talking to you just as if we were in the same room. Isn't that amazing?

Sincerely, Sue