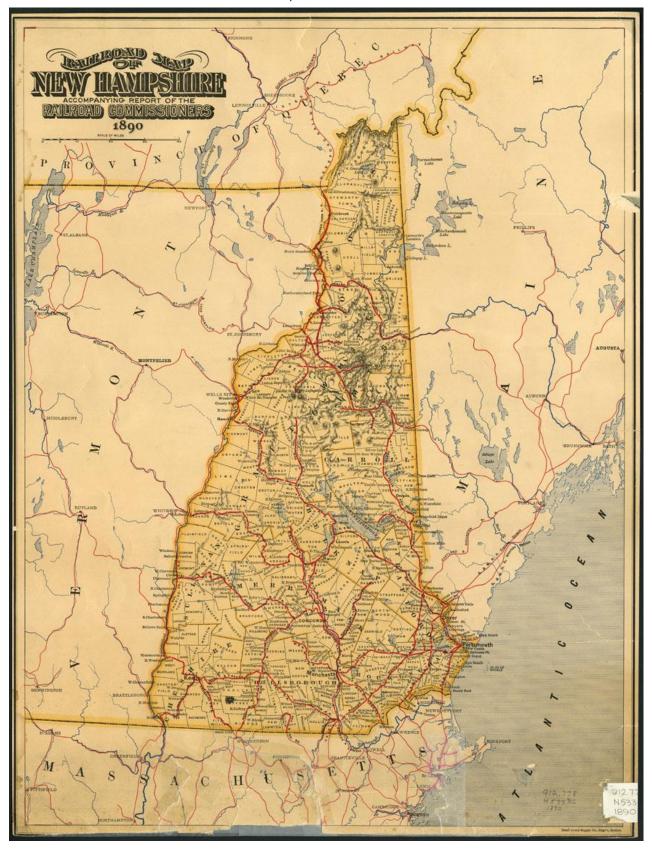


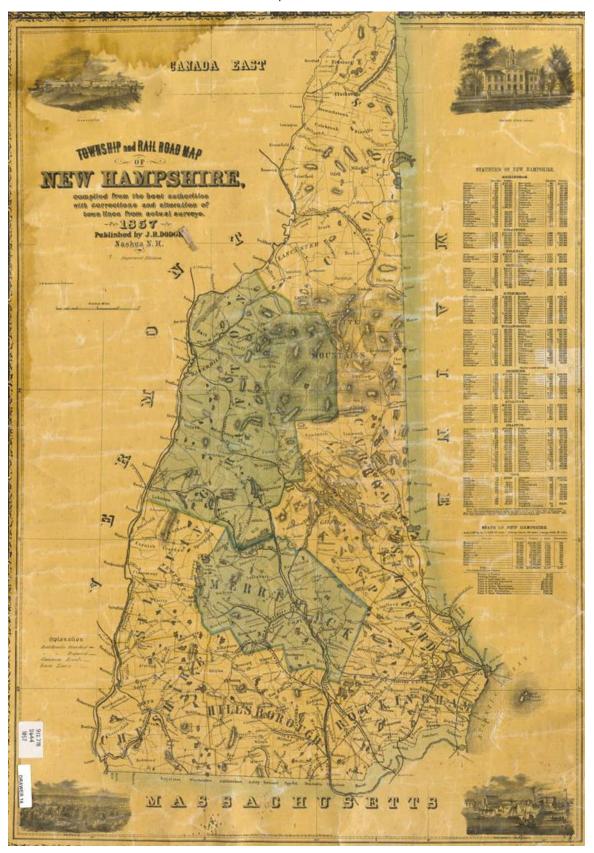
Lesson 13.2: Railroads Over and Across New Hampshire



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



Lesson 13.2: Railroads Over and Across New Hampshire



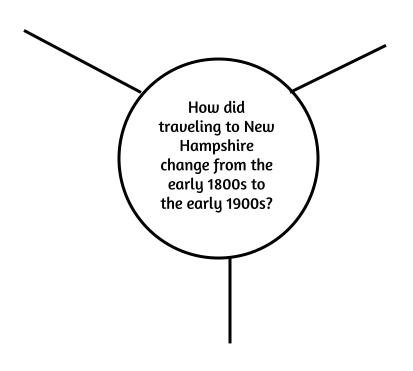
Railroad Map of New Hampshire 1857 Source: New Hampshire Historical Society



Name		

# Traveling to New Hampshire in the 1800s

A mind map helps you organize what you know about a topic. Use the branches to write different ideas that answer the question and details that you find interesting. Can you make connections between them? Can you branch off of your branches with more details?

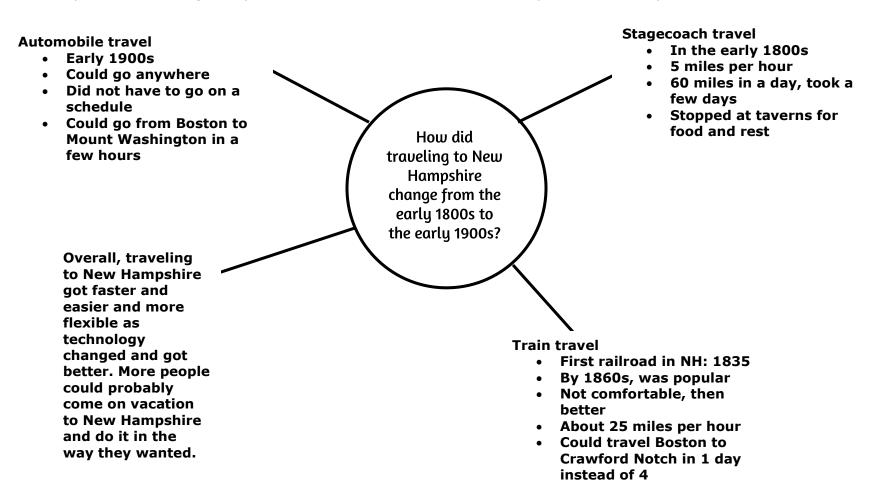




Name	Answer Key	

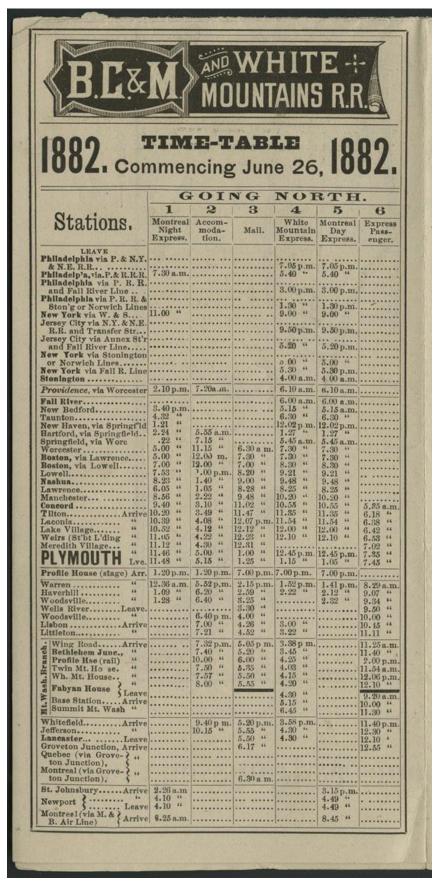
# Traveling to New Hampshire in the 1800s

A mind map helps you organize what you know about a topic. Use the branches to write different ideas that answer the question and details that you find interesting. Can you make connections between them? Can you branch off of your branches with more details?





Lesson 13.2: Railroads Over and Across New Hampshire



1882 Timetable Source: New Hampshire Historical Society



Name		

# Traveling on the White Mountain Express

You board a train in Boston to go to either the top of Mount Washington or to one of the grand resort hotels in the White Mountains. Your train is scheduled to leave Boston at **7:30 am**. Don't be late! Below are the times when the train will arrive at three different locations.

Departure Time	Arrival Time	Location of Arrival
	3:45 pm	Bethlehem Junction
7:30 am from Boston	4:30 pm	Profile House
	6:30 pm	Summit of Mount Washington

**Note:** The railroad time table has been edited from the original time table to make it easier for you to read.

Source: New Hampshire Historical Society

1. How long would it take to get from Boston to the Profile House?

2. How long would it take to get from Boston to the summit of Mount Washington?

3. How long would it take to get from Boston to Bethlehem Junction?



4.	Before trains, people had to take stagecoaches to get to their vacation destination. It is approximately 155 miles from Boston,
	Massachusetts, to the summit of Mount Washington in New Hampshire. A stagecoach could travel about 5 miles per hour. About
	how many hours would it take you to get from Boston to Mount Washington by stagecoach? Please round to the nearest hour.

5. Today, people usually drive cars to get to their vacation destination. If you were able to drive 50 miles per hour on the highway, about how many hours would it take you to get Boston to Mount Washington? Please round to the nearest hour.

#### Reflect

6. Because it took people longer to get to their vacation destinations in the 19th century, how did people plan their vacations differently than we do today?

7. Think back about what you've read and the math you've done. How has technology impacted tourism in New Hampshire?



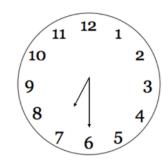


Name	Answer Key			

# Traveling on the White Mountain Express

You board a train in Boston to go to either the top of Mount Washington or to one of the grand resort hotels in the White Mountains. Your train is scheduled to leave Boston at **7:30 am**. Don't be late! Below are the times when the train will arrive at three different locations.

Departure Time	Arrival Time	Location of Arrival
	3:45 pm	Bethlehem Junction
7:30 am from Boston	4:30 pm	Profile House
	6:30 pm	Summit of Mount Washington



**Note:** The railroad time table has been edited from the original time table to make it easier for you to read.

Source: New Hampshire Historical Society

1. How long would it take to get from Boston to the Profile House?

7:30am to 4:30pm is 9 hours, so it would take 9 hours to get from Boston to the Profile House.

2. How long would it take to get from Boston to the summit of Mount Washington?

7:30am to 6:30pm is 11 hours, so it would take 11 hours to get from Boston to the summit of Mount Washington.

3. How long would it take to get from Boston to Bethlehem Junction?

7:30am to 3:45pm is 8 hours and 15 minutes, so it would take 8 hours and 15 minutes to get from Boston to Bethlehem Junction.

4. Before trains, people had to take stagecoaches to get to their vacation destination. It is approximately 155 miles from Boston, Massachusetts, to the summit of Mount Washington in New Hampshire. A stagecoach could travel about 5 miles per hour. About how many hours would it take you to get from Boston to Mount Washington by stagecoach? Please round to the nearest hour.

It would take about 14 hours to travel by stagecoach from Boston to the summit of Mount Washington, because 165 miles  $x ext{ 5 mph} = 810$ , and then  $810 \div 60$  minutes = 13.75 hours.



5. Today, people usually drive cars to get to their vacation destination. If you were able to drive 50 miles per hour on the highway, about how many hours would it take you to get Boston to Mount Washington? Please round to the nearest hour.

It would take about 4 hours to travel by car from Boston to the summit of Mount Washington, because 50 miles x 5 mph = 250, and then 250  $\div$  60 minutes = 4.17 hours, which rounds to 4 hours.

#### Reflect

- 6. Because it took people longer to get to their vacation destinations in the 19th century, how did people plan their vacations differently than we do today?
  - People would decide to stay at a hotel or campsite longer.
  - They would need to pack more things.
  - If they were staying in a hotel, they would need to think about how much money they were spending.
  - If they were camping, they would need to think about how much food to bring.
  - They would need to think about how they would travel to their destination with all of their luggage.
- 7. Think back about what you've read, and the math you've done. How did the Industrial Revolution and technology impact tourism in New Hampshire?
  - Railroads helped expand tourism to New Hampshire, by giving people a way to travel to different parts of the state.
  - · Railroads helped create grand resort hotels.
  - With the creation of the grand resort hotels, there was an increase in job opportunities for the inhabitants of the White Mountain region during the summer months.



Name:	

# Analyze It! Railroad Map of New Hampshire 1890

1. What three observations leap to your mind when you first look at the map?

2. What else do you notice about this map? What is familiar or unfamiliar to you?

3. Describe this map as if you were talking to someone who couldn't see it.



Encounter



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

4. Who made this map? How do you know?

5. Look for the heading or title. What information is there to help you understand the map better?



6. What else do you notice in this map? Is there anything missing? Anything that surprises you?



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

7. Are there more human or physical features on this map? What are they?

8. How is this map helpful or unhelpful to the viewer?

Build





# **Tips for Studying Maps**

# Vocabulary

**Scale** (noun) A tool, printed or drawn, to show how distances should be measured on a map

**Boundary** (noun) A real or imaginary line that divides two places

**Cardinal direction** (noun) One of the four main points on a compass: north, south, east, or west

**Compass rose** (noun) A symbol that represents a compass showing cardinal and intermediate directions

**Equator** (noun) The imaginary line that runs east-west around the middle of Earth

**Intermediate direction** (noun) A point between two of the main points on a compass, such as northeast or southwest

**Key** (noun) An explanation of abbreviations or symbols used on a map, sometimes called a legend

**Latitude** (noun) The distance north or south of the Equator, measured in degrees

**Longitude** (noun) The distance east or west of the prime meridian, measured in degrees

**Prime meridian** (noun) The imaginary line that runs northsouth around the middle of Earth

# **Types of Maps**

**Economic Map**: This type of map displays information about the resources available across a certain area or the way the land is used to support the local economy. Look for symbols or colors representing crops or industries.

**Physical Map**: This type of map is focused on the natural features of a certain area. Look for labeled bodies of water like rivers, lakes and oceans and labeled landforms like mountains, valleys, hills, and plateaus.

**Political Map**: This type of map shows how people have organized the land and water in a certain area. Look for dashed or solid lines representing boundaries and borders between states, towns and, countries. Dots of different sizes may mark towns and cities.

**Road Map**: This type of map shows how people have added to land and water to make it easier to transport people and goods. Look for highways, bridges, and railroad tracks on this type of map.

**Thematic Map**: This type of map provides information on a specific topic and how it relates to a certain area by adding a layer of data to a base map. For example, a population density map might use different colors to show which towns have more people living in them than others.

**Topographical Map**: This type of map shows the shape of the land and how the elevation, or the height of the land, changes across a certain area. Look for shading that creates the effect of raised land, or changes in color on the map as the land rises up above sea level.



Name:	Answer Key	1

# Analyze It! Railroad Map of New Hampshire 1890

1. What three observations leap to your mind when you first look at the map?

It is an old map of New Hampshire, with sections of Vermont, Massachusetts, and Maine shown along its borders.

The map has lots of red lines running through it.

The map of New Hampshire is highlighted in yellow.

2. What else do you notice about this map? What is familiar or unfamiliar to you?

Answers will vary.

3. Describe this map as if you were talking to someone who couldn't see it.

This is an old map of New Hampshire. It is colored in yellow and has lots of messy red lines drawn throughout the map. The lakes, rivers, and mountains of New Hampshire are also shown in this map. The different areas of New Hampshire and all of the towns are labeled on the map.





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

4. Who made this map? How do you know?

Moose on the Loose Social Studies for Granite State Kids

The map was made by the Railroad Commissioners in 1890. I know this because of what is labeled next to the title of the map.

5. Look for the heading or title. What information is there to help you understand the map better?

The title of the map is "Railroad Map of New Hampshire, Accompanying Report of the Railroad Commissioners, 1890."

From this title, I can figure out that this is a map of railroads in New Hampshire.



6. What else do you notice in this map? Is there anything missing? Anything that surprises you? **Answers will vary.** 

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

7. Are there more human or physical features on this map? What are they?

I believe that there are an equal amount of human and physical features on this map, because it shows rivers, lakes, and mountains, as well as the red lines and town boundaries.

9. How is this map helpful or unhelpful to the viewer?

Answers will vary.

Build

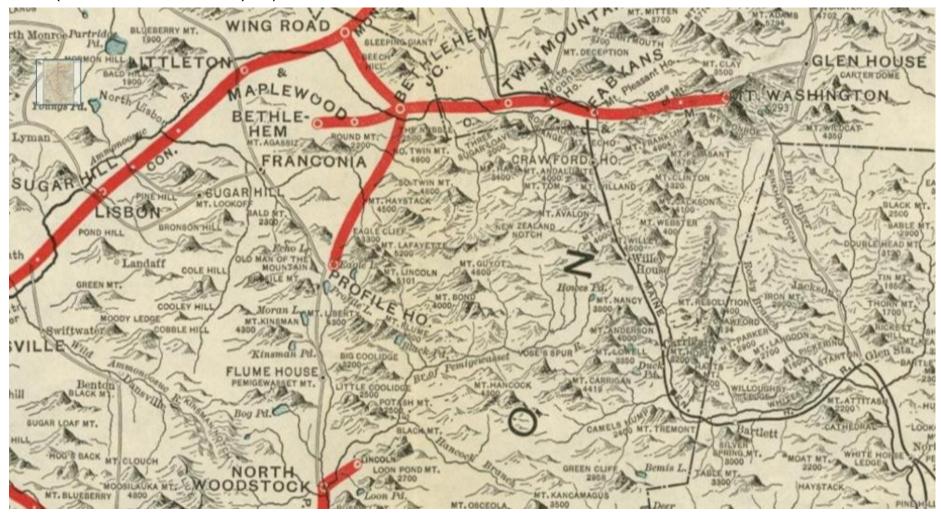




Name				

# Traveling on the White Mountain Express

People took trains north to vacation in the White Mountains and lakes regions of New Hampshire. During this time, grand hotels were built for the tourists; some of these hotels had hundreds of rooms. Train tracks were even built directly to these hotels! This map shows some of the railroads that went straight to those hotels in thick lines. Read the map and locate and circle as many grand resort hotels (sometimes called "houses") as you can. Hint: Sometimes "house" is abbreviated "Ho."





Lesson 13.2: Railroads Over and Across New Hampshire



Profile House, circa 1850–1870 Source: New Hampshire Historical Society



Lesson 13.2: Railroads Over and Across New Hampshire



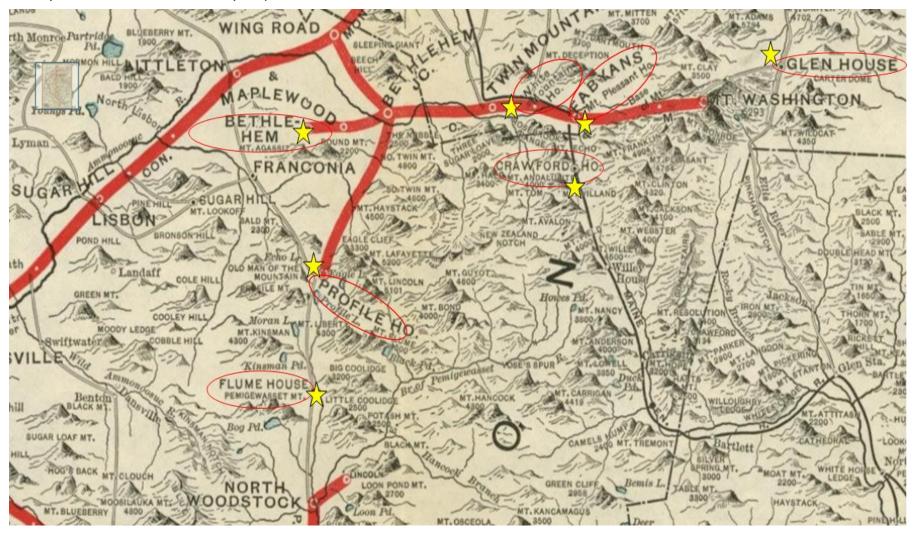
Mount Washington Hotel, circa 1900–1987 Source: New Hampshire Historical Society



Name	Answer Key	,		

# Traveling on the White Mountain Express

People took trains north to vacation in the White Mountains and lakes regions of New Hampshire. During this time, grand hotels were built for the tourists; some of these hotels had hundreds of rooms. Train tracks were even built directly to these hotels! This map shows some of the railroads that went straight to those hotels in thick lines. Read the map and locate and circle as many grand resort hotels (sometimes called "houses") as you can. Hint: Sometimes "house" is abbreviated "Ho."



Section of White Mountain Railroad Map, circa 1890s Source: New Hampshire Historical Society.



Name		

# **Pay Your Way**

Prices for taking the train in the 1880s were very different than they are today. Use the information in the chart below to answer the following questions and be sure to explain your answers.

Starting Location	Ending Location	Price
	Wolfeboro, NH	\$3.15
Boston, MA	Rumney, NH	\$4.10
	Bath, NH	\$5.50

1. Is it less expensive to travel to Bath or Wolfeboro? By how much?

2. What is the difference between the price to Rumney and the price to Bath, from Boston?

3. How much is it for you and a friend to travel to Bath?

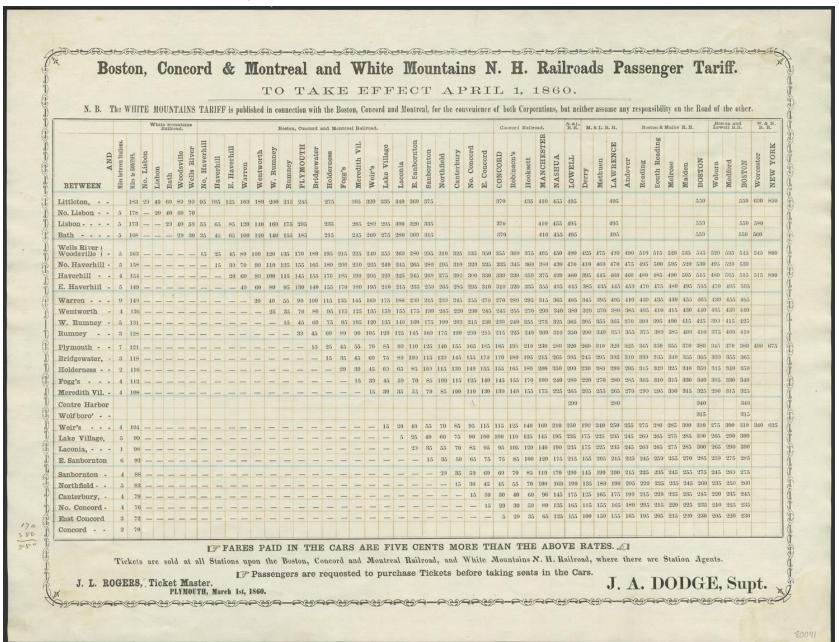




4.	If you, two siblings, and your two parents wanted to travel to wolledoro, now much would it cost?
5.	If your friend's family of 4 plus their two grandparents wanted to travel to Rumney, how much would it cost??
6.	Bonus: Look at the Railroad Passenger Ticket Prices chart. How much would a ticket to Wolfeboro from Boston cost if the ticket was purchased on the train?



Lesson 13.2: Railroads Over and Across New Hampshire



Railroad Passenger Ticket Prices 1860 Source: New Hampshire Historical Society

Name	Answer Key	<i>l</i>

### **Pay Your Way**

Prices for taking the train in the 1880s were very different than they are today. Use the information in the chart below to answer the following questions, and be sure to explain your answers.

Starting Location	Ending Location	Price	
	Wolfeboro, NH	\$3.15	
Boston, MA	Rumney, NH	\$4.10	
	Bath, NH	\$5.50	

- 1. Is it less expensive to travel to Bath or Wolfeboro? By how much?

  It is less expensive to travel to Wolfeboro. To Bath is \$5.50, and to Wolfeboro is \$3.15, so \$5.50 − 3.15 = \$2.35.
- 2. What is the difference between the price to Rumney and the price to Bath, from Boston?

  To Rumney is \$4.10 and to Bath is \$5.50, so the difference is \$1.40 because \$5.50 \$4.10 = \$1.40.
- 3. How much is it for you and a friend to travel to Bath?

  It would cost \$11.00 for 2 people to travel to Bath, because \$5.50 x 2 is \$11.00.
- 4. If you, two siblings, and your two parents wanted to travel to Wolfeboro, how much would it cost?

  It would cost \$15.75 for a family of 5 to travel to Wolfeboro, because \$3.15 x 5 is \$15.75.
- 5. If your friend's family of 4 plus their two grandparents wanted to travel to Rumney, how much would it cost?? It would cost \$24.60 for the family of 4 and the 2 grandparents to travel to Rumney, because 6 x \$4.10 is \$24.60.
- 6. Bonus: Look at the Railroad Passenger Ticket Prices chart. How much would a ticket to Wolfeboro from Boston cost if the ticket was purchased on the train?
  - It would cost \$3.20, because the price of the ticket costs 5 cents more if the ticket was purchased on the train, so \$3.15 + \$0.05 = \$3.20.