

Post-Visit Lesson #1: Transportation Then and Now

Objectives

- Students will discuss horse-drawn transportation in the 1800s.
- Students will make connections between transportation in the horse-drawn vehicle era and today.
- Students will create advertisements for the transportation of tomorrow.

Materials

- Handout “Horse-drawn Transportation in the 1800s” (follows this lesson)

Student Instruction

1. Tell students that now that they have been to their local museum to see *Going Places*, you’re going to discuss some of the ideas discussed in the exhibit. Ask them what they learned through the exhibit that they did not know before.

2. Read the handout “Horse-drawn Transportation in the 1800s.”

3. Write on the board: “How does transportation affect your quality of life?” Allow the students about 15 minutes to write on this topic.

4. Discuss the student responses to the question. Some questions to ask include:

- What does “quality of life” mean to you?
- What aspects of transportation are important in improving one’s quality of life?
- How was the horse-drawn vehicle an improvement in the quality of life for people living in the nineteenth century?
- How has American transportation changed since 1900?
- How do transportation options affect the way we live, work, play, and travel?
- What are some of the advantages and disadvantages of horse-drawn vehicles as a mode of transportation over modern-day automobiles?
- What were roads like in the 1800s and what are they like today?
- What types of transportation do you, your family, and friends use each week?
- What are some ways that your community’s transportation systems could be improved?
- Do some groups of people (students, senior citizens) tend to use some types of transportation more than others?
- What changes in your local roads and transportation systems might help the most people get around more safely and efficiently?

5. Remind students that in the 1800s, people were separated from one another to a degree that is hard to imagine today. Telephones were scarce, radios and other forms of mass communication did not exist, and even postal service was unreliable in remote areas.

For local transportation, people used their feet or a horse and wagon. For a farmer who lived five miles out of town, hitching up the wagon and taking the family into town for church or shopping was a big event. Visiting friends who lived 10 miles away was an all-day journey because horses needed time to rest and be fed. People who lived in cities were also limited in how far they could

travel. They could take horse-drawn trolleys to distant parts of their cities, but often a city dweller's entire world was the immediate neighborhood.

Student Activities/Products

1. Tell students: Now that we have examined horse-drawn transportation, let's think about the transportation of the future. Today's transportation technologies are making huge leaps forward. Hybrid cars are leading the way. This technology will help us deal with the earth's fossil fuel depletion. Radical changes—including flying cars—may be just around the corner. The visions and plans humans dream up today will pave the way for tomorrow's transportation reality.
2. Ask students to design their own vehicles or transportation systems for the world of tomorrow. These designs can include:
 - Intelligent cars that drive themselves
 - Lighter, stronger planes of aluminum and titanium
 - Personal aircraft
 - Space taxis
 - Skycars
 - Segways for everyone
 - Magnetic levitation railways (called maglev trains) that actually levitate, or float, on an electromagnetic current along guideways
3. Ask students to create an advertisement appropriate to their designed vehicle.
4. Combine all the advertisements into a catalog of tomorrow's vehicles.

Extensions

1. Ask students to create an illustrated timeline of transportation.
2. Ask students to research significant transportation milestones in land, sea, air, and space transportation of the past century and to determine the impact of these milestones on society, the economy, communication, travel, and their lives.
3. Have students compare the structure and uses of automobiles and carriages (undercarriage/suspension, reins/steering wheels, carriage step/running boards, etc.).
4. Ask students to examine the different ways people get around in your community (cars, public transportation, bikes, etc.) Have them identify a problem with a local transportation route, such as a pothole, a narrow bike path, a lack of traffic signal at a busy intersection, etc. Have them develop a solution for addressing this problem and then present it as a proposal to the class.
5. Ask students to detail the story of urban horse: its importance and its plight.
6. The horse was indispensable in nineteenth century America. Ask students to research how to choose and care for a horse.

Horse-drawn Transportation in the 1800s

In the 1800s, American transportation was centered on the horse. Cities during this century were “walking cities” because most residents could not afford the expense of a horse and carriage. By the early 1800s, newly paved streets made possible the first horse-drawn public transportation in the form of omnibuses, which first appeared in Manhattan in 1829.

Teams of two to six horses pulled omnibuses. They were overcrowded and riders were jarred and thrown around as the buses moved along cobblestone streets. Because omnibus travel was difficult and often dangerous, the horsecar (or trolley) was developed. It was an omnibus-type vehicle pulled by horses over rails set into city streets. Horsecars first ran in New York City in 1832. They could move traffic faster than omnibuses. This simple change spurred the outward expansion of the city, creating the first American suburbs.

Horses were by far the most expensive part of any horsecar operation, so the animals were treated with care. Fresh animals took over every four or five hours. Back in the stable, they were groomed, watered, and fed hay and grain three times a day, along with treats such as oats and carrots. In all, they ate about 30 pounds of food a day. Every horsecar stable employed its own veterinarian, who kept the animals healthy.

A far more expensive way to move about the city was the hansom cab, what we would today call a taxi. Hansom cabs first appeared in the United States in 1829 in Boston. This vehicle was so light that a passenger had to climb aboard carefully to keep the cab from tipping over. A single horse pulled the cab. Wealthy citizens used hansom cabs most often, because they were expensive to ride in.

The horses that powered these transportation systems also provided great limitations. For example, the Great Epizootic of 1872 killed thousands of horses and brought the movement of passengers and goods to a standstill. In response to this great epidemic, the American Society for the Prevention of Cruelty to Animals (ASPCA) was born in an effort to regulate stables and preserve the health of urban herds.

Further, large numbers of horses posed problems of cost, pollution, and traffic congestion. American cities teemed with horses. By 1900, Manhattan had more than 130,000 horses, more than any other county in the U.S. Private citizens rode to and from work and carried out their errands using horses. Horse-drawn delivery wagons, peddlers’ carts, fire engines, ambulances, cabs, and private carriages clogged city streets. Every well-to-do private residence had its own stable and carriage house (the cost of keeping a horse for private use was out of reach for people who weren’t wealthy). Public stables, blacksmith shops, hitching posts, and watering troughs were everywhere. Adding to all this traffic were the thousands of delivery wagons. At a time when shops commonly delivered goods directly to the customer, almost every store had its own delivery wagon and horses. Peddlers and farms from the surrounding countryside sold their wares and produce directly from their carts and wagons.

All these horses also caused a problem that went beyond just traffic jams. Every year the horses dropped tons of manure. Aside from the bad smell, it was a real challenge to pedestrians as they tried to walk across city streets. Even more serious, the manure attracted flies and other disease-transmitting insects. In addition, the clip-clopping of all the horses and the sound of the iron wheels created constant noise. Some cities, in an attempt to control the racket, passed laws prohibiting wagons drawn by more than four horses from entering the city. It became a common practice to lay out straw in front of a sick person's house in order to keep down the noise.

Boston and a few other cities made it illegal for horse-drawn traffic to pass by their courthouses so that lawyers and witnesses could be heard. Some doctors claimed that the endless noise of horses and the vehicles they pulled was the cause of a growing number of "nervous diseases."