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Traveling the National Road Teacher Instructions

Student Activity: *Stop! Pay Toll!* Tollhouse Rate Sign Poster

Materials

- Tollhouse Rate Sign poster.
- One copy of reproducible page Traveler Information Cards.
- The reproduction coins pennies, half-dimes, dimes and quarters.
- Quill pen and paper for the tollkeeper.
- Table with two chairs for tollhouse gate.
- Copies of the reproducible page Rates of Toll (optional).

Objectives

After completing the student activity, students will be able to:

- Explain why tolls were needed on the National Road.
- List two situations where people passed through without paying a toll.

Standards

Pennsylvania Standards for History

- 8.1.3 B
- 8.2.3 C

Pennsylvania Standards for Economics

- 6.2.3 H
- 6.4.3 G

Background

Students will need some background on tolls, tollhouses, and tollkeepers. Unit 2 provides the students with information, as do the biography card on Hiram Seaton, the occupation card on tollkeeper, and the historic site card on the tollhouses at Addison and Searights.



Procedures

Activity set up.

- Prepare the Traveler Information Cards. Give a copy of the reproducible page Traveler Information Cards to a team of students who will cut out each card and paste it on an index card, creating 26 cards. If need be, make additional copies of the reproducible sheet and duplicate some of the cards.
- 2. Arrange the classroom. Set up a tollhouse inside the classroom by moving desks to create an aisle where travelers can walk up to the tollkeeper's table/desk. In another spot, set up a bank where travelers can withdraw money to pay their tolls.
- 3. Arrange the "tollhouse" so the tollkeeper can sit with a helper, the "mathematician," who will help compute the tolls. Supply the tollkeeper with a "quill" pen and paper to record the amount of each toll.

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- 4. Put out the reproduction coins at the bank.
- 5. To move the activity along faster, set up two tollhouse gates to collect tolls.
- 6. Hang the Tollhouse Rate Sign poster prominently near the tollkeeper's table.

Tollhouse Activity

- 1. Assign two students to be the tollkeeper and the mathematician. Assign a banker. Invite students to take turns at these three jobs as the game progresses.
- 2. Tell the rest of the students they will be travelers.
- 3. Have each traveler randomly draw one of the Traveler Information Cards.
- 4. Tell the travelers to use the tollhouse rate sign to determine how much their toll will be—based on the information on their card. (Some of the travelers do not have to pay.)
- 5. Have the travelers go to the bank and withdraw the correct amount of money.
- 6. Have the travelers approach the tollkeeper and pay the toll required of the person, people, and/or animals described on the card.
- 7. Instruct the tollkeeper and the mathematician to use the tollhouse rate sign to calculate the toll each traveler needs to pay.
- 8. Have the tollkeeper collect the money and give the traveler change if necessary.
- 9. Have the tollkeeper or mathematician record each toll paid.
- 10. Alert the students that one card indicates a traveler who refuses to pay the toll (the fine for refusing is \$3). Suggest that the students think of reasons for refusing and be prepared to present those objections politely to the tollkeeper.
- 11. After the travelers have paid their tolls, ask them to compute the total they would have paid in tolls to pass through Pennsylvania. (There were six tollhouses in Pennsylvania along the National Road.)
- 12. At the end of the activity, have the tollkeeper and mathematician add up the total tolls recorded and count the money they collected to see if it is the same.
- 13. Discuss the experience of being a traveler. Have the students who were travelers with animals describe the problems they would have had moving along the National Road. Have the students who were travelers with vehicles describe some problems their vehicles might have encountered. Have the other students describe some of the problems they might have had riding a horse. Have the students hypothesize why the toll rates were set the way they were. (The more damage the vehicle or animals did to the road the higher the toll).
- 14. Have each student give his or her total in tolls paid in Pennsylvania.
- 15. Ask if the tolls seem fair and why the students thought they were or were not.

Modified Activity

Have the students randomly draw cards and compute the tolls, without setting up the tollhouse or using the reproduction coins.

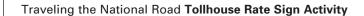


Traveling the National Road **Teacher Instructions**

Stop! Pay Toll!

Activity Answers

1 person on a horse 20 sheep $4\phi + 6\phi = 10\phi$ 1 person on a horse 40 pigs $4\phi + (6\phi + 6\phi) = 16\phi$	1 person on a horse 20 pigs 4¢+ 6¢ = 10¢ 1 person on a horse 20 cattle 4¢ + 12¢ = 16¢
1 person on a horse 4¢	2 people on horses $4\phi + 4\phi = 8\phi$
3 people on horses $4\phi + 4\phi + 4\phi = 12\phi$	1 sleigh — 1 horse 3¢
1 sleigh — 2 horses 3¢ + 3¢ = 6¢	Carriage with 2 wheels —1 horse 6¢
Carriage with 2 wheels — 2 horses $6\phi + 3\phi = 9\phi$	Carriage with 4 wheels — 2 horses 12¢
Stagecoach (with 4 wheels) — 4 horses 12¢ + 3¢ + 3¢ = 18¢	Carriage with 4 wheels — 4 horses $12\phi + 3\phi + 3\phi = 18\phi$
Wagon with 2-inch-wide wheels — 1 horse 4¢	Wagon with 2-inch-wide wheels — 2 horses 4¢ + 3¢= 7¢
Wagon with 3-inch-wide wheels — 2 horses 4¢ + 3¢= 7¢	Wagon with 3-inch-wide wheels — 4 horses 4¢ + 3¢ + 3¢ + 3¢ = 13¢
Wagon with 3-inch-wide wheels — 6 horses $4\phi + 3\phi + 3\phi + 3\phi + 3\phi = 19\phi$	Wagon with 5-inch-wide wheels — 6 horses $3\phi + 3\phi + 3\phi + 3\phi + 3\phi = 18\phi$
Wagon with 7-inch-wide wheels — 6 horses $2\phi + 3\phi + 3\phi + 3\phi + 3\phi = 17\phi$	Child on a horse going to school Free
6 people on horses going to a funeral Free	Carriage with 4 wheels — 2 horses —bringing a family to church Free
Stagecoach (with 4 wheels) — 4 horses — carrying U.S. mail Free	Person who refuses to pay toll \$3.00 if they do not have a good reason for not paying





Traveler Information Cards

1 person on a horse 20 sheep	1 person on a horse 20 pigs
1 person on a horse 40 pigs	1 person on a horse 20 cattle
1 person on a horse	2 people on horses
3 people on horses	1 sleigh — 1 horse
1 sleigh — 2 horses	Carriage with 2 wheels — 1 horse
Carriage with 2 wheels — 2 horses	Carriage with 4 wheels — 2 horses
Stagecoach (with 4 wheels) — 4 horses	Carriage with 4 wheels — 4 horses
Wagon with 2-inch-wide wheels — 1 horse	Wagon with 2-inch-wide wheels — 2 horses
Wagon with 3-inch-wide wheels — 2 horses	Wagon with 3-inch-wide wheels — 4 horses
Wagon with 3-inch-wide wheels — 6 horses	Wagon with 5-inch-wide wheels — 6 horses
Wagon with 7-inch-wide wheels — 6 horses	Child on a horse going to school
6 people on horses going to a funeral	Carriage with 4 wheels — 2 horses —bringing a family to church
Stagecoach (with 4 wheels) — 4 horses — carrying U.S. mail	Person who refuses to pay toll



Traveling the National Road Tollhouse Rate Sign Activity

Rates of Toll

on the National Road in Pennsylvania

For every 20 sheep
For every 20 pigs
For every 20 cattle
For every horse and rider
For every sleigh with one horse
For every carriage with 2 wheels and 1 horse
For every carriage with 4 wheels and 2 horses
Wagon with wheels up to 4 inches wide and 1 horse
Wagon with wheels between 4 and 6 inches wide with 1 horse
Wagon with wheels between 6 and 8 inches wide with 1 horse
Wagons or carts with wheels over 8 inches wide Free
Persons going to or from: one part of their farm to another, the mill, a worship service, a funeral, an election, school or court Free
Carriages or wagons carrying property of the U.S. government Free
ANY PERSON REFUSING TO PAY THE TOLL, A FINE

Traveling the National Road Teacher Instructions

Student Activity: Mile Markers *Are We There Yet?*

Materials

- 4 cardboard mile markers.
- Copies of the reproducible page Mile Marker Math.
- Copies of the reproducible page **Mile Marker Map**.

Objectives

After completing the student activity, students will be able to:

- List the two cities which always appeared on the historic National Road mile markers.
- List one reason the mile markers were important.

Standards

Pennsylvania Standards for History

- 8.1.3 B
- 8.2.3 C

Background

Explain to the students that there was one mile marker every mile. Each marker had four distances on it. For the travelers going west there was the distance to Wheeling, Virginia, and the distance to the next large town to the west. This information was placed so the travelers going west could see it. On the other side, for the travelers heading east, there was the distance to Cumberland, Maryland, and to the next big town to the east.

The mile markers used in this activity have the following information on them:

Mile Marker A

16 to Wheeling; to Triadelphia 10
115 to Cumberland; to Washington 16

Mile Marker C

68 to Wheeling; to Brownsville 12
63 to Cumberland; to Smithfield 22

Mile Marker D

97 to Wheeling; to Petersburg 2
34 to Cumberland; to Frostburg 23



Procedures

Pre Activity Warm-Up: Calculating Distance

- 1. Start by having a group of six students, numbered 1–6, stand in a row facing the class. They do not have to be evenly spaced.
- 2. Walk from student 1 to student 2 and count the steps out loud for the students. Then walk to each remaining student counting the steps.
- 3. Ask the class a variety of questions about the distances between the students. For example, how many steps would it take to get from student 3 to student 6? How many from student 3 to student 1? How many total steps is it from student 1 to student 6? Continue with various examples until the student get the idea.

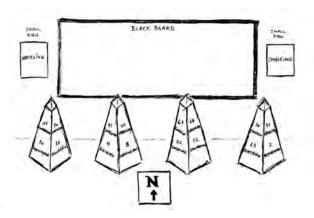
Traveling the National Road Teacher Instructions



Are We There Yet?

Pre Activity Warm-Up: Calculating Distance, continued

4. Discuss how these examples relate to the information on the mile markers. Student 1 can represent Wheeling and student 6 Cumberland. All the students in between can represent mile marker locations. Each of the mile marker students have distances to both student 1 (Wheeling) and student 6 (Cumberland), just as the mile markers have the distances to both those locations. They also have distances to the students in between, just as mile markers list some of the in-between distances.



Mile Marker Activity

- 1. Place the mile markers along one wall in the room. For the purpose of this activity, when standing in the middle of the room looking at this wall, assume that you are facing north. (You may want to place a north arrow or compass rose on the floor with north pointing to the wall where the mile markers are located.) When facing the "north" wall, "west" and the city of Wheeling, Virginia, are to your left. Likewise "east" and the city of Cumberland, Maryland, are to your right. (You may want to put up a "Wheeling" sign and a "Cumberland" sign.) Place mile marker A at the left end of the wall. Then place mile marker B and mile marker C. Mile marker D should be the right-most mile marker.
- 2. Give each student a copy of the reproducible page Mile Marker Math and Mile Marker Map.
- 3. Have students visit each mile marker and complete the two sheets at each station.

Activity Answers

- Mile Marker Math Mile marker A
 - 1.16
 - 2.16 + 115 = 131
- Mile marker B
 - 1.40
 - 2.40 8 = 32
- Mile marker C
 - 1.63
 - 2.12 + 22 = 34
- Mile marker D
 - 1.97
 - 2.97 2 = 95

- Mile Marker Map
 Top left box
 16 to Wheeling 10 to Triadelphia
 115 to Cumberland 16 to Washington
 Bottom left box
 40 to Wheeling 8 to Washington
 91 to Cumberland 4 to Hillsboro
 Middle box
 - 68 to Wheeling 12 to Brownsville 63 to Cumberland 22 to Smithfield Right box
 - 97 to Wheeling 2 to Petersburg 34 to Cumberland 23 to Frostburg



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ARTIFACT ACTIVITIES

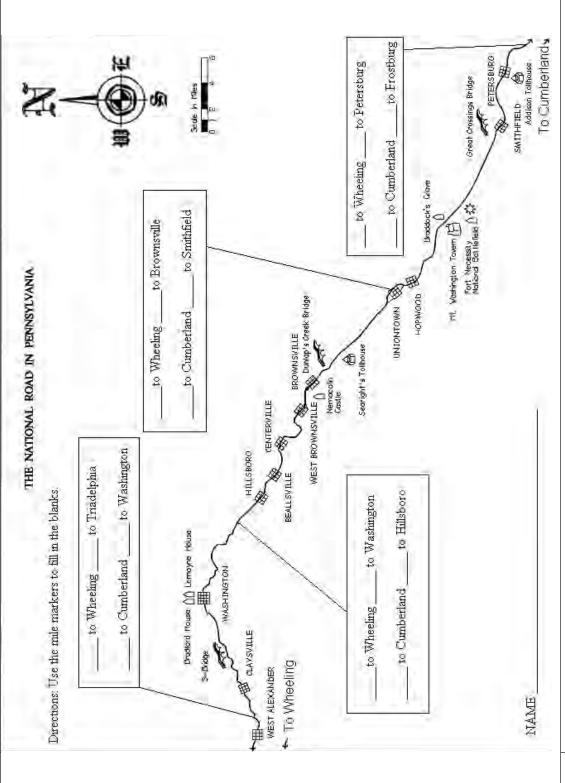
Traveling the National Road Student Activity

Mile Marker Math

Name:	Date:					
Directions: U	se the mile markers to answer the questions.					
Mile Marker A	16 to Wheeling; to Triadelphia 10 115 to Cumberland; to Washington 16					
1. How many mile	es to Wheeling?					
2. How many mile	es between Wheeling and Cumberland?					
Mile Marker B 40 to Wheeling; to Washington 8 91 to Cumberland; to Hillsboro 4						
1. How many mile	es to Wheeling?					
2. Once you get to	Washington, how many miles to Wheeling?					
Mile Marker C	68 to Wheeling; to Brownsville 12 63 to Cumberland; to Smithfield 22					
1. How many mile	es to Cumberland?					
2. How many mile	es between Brownsville and Smithfield?					
Mile Marker D	97 to Wheeling; to Petersburg 2 34 to Cumberland; to Frostburg 23					
1. How many mile	es to Wheeling?					
2. Once you get to	Petersburg, how many miles to Wheeling?					

Traveling the National Road Student Activity

Mile Marker Map







Traveling the National Road Teacher Instructions

Student Activity: Outdoor or Gym — How Far Is It?

Materials

- 4 cardboard mile markers.
- Long retractable tape measure.

Objectives

After completing the student activity, students will be able to:

• Explain how the mile markers were placed on the National Road.

Standards

Pennsylvania Standards for History

- 8.2.3 B
- 8.2.3 C
- 8.3.3 B



Procedures

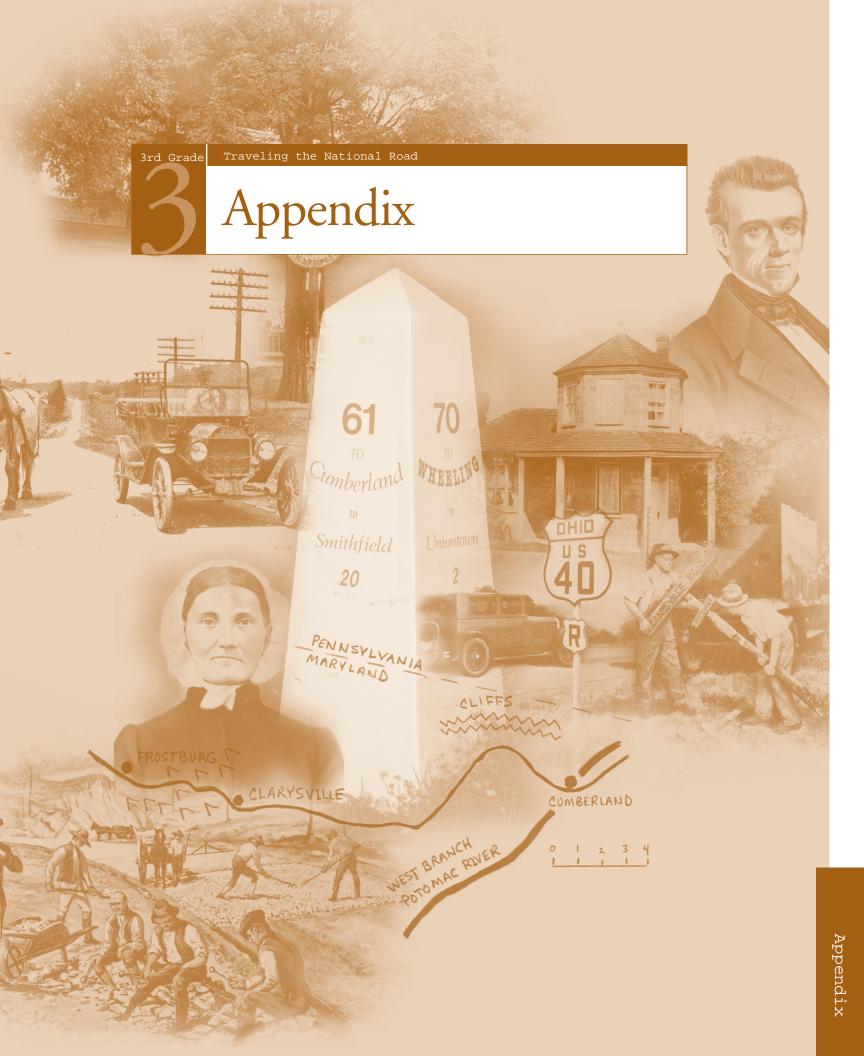
Activity One

- 1. Measure the length of one side of the gym or a section of the playground.
- 2. For this activity, assume 1 foot equals 1 mile.
- 3. Ask students to calculate how many mile markers they would need for the distance measured. If the distance measured was 30 feet, then they would need 30 mile markers. If it was 92 feet, they would need 92 mile markers.

Activity Two

- 1. Mark a 131-foot section of the gym or playground. This represents the distance between Cumberland, Maryland, and Wheeling, Virginia, on the National Road.
- 2. Make one end Wheeling and the other end Cumberland.
- 3. Mark off every 5 to 10 feet.
- 4. Assign a team of students to each of the four mile markers. Ask teams to place their marker correctly on the marked National Road.

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National Road Timeline

1752	The Nemacolin Trail is marked by Nemacolin, a Delaware Indian, and Thomas Cresap. It led from Wills Creek on the Potomac River (present day Cumberland, Maryland) to the Monongahela River.
1754	Washington's Road is built by George Washington troops along Nemacolin's Trail during a campaign against the French.
1755	Braddock's Road, built by troops under the command of British General Edward Braddock, improves and extends Washington's road from the year before. Eight miles from Fort Duquesne (present day Pittsburgh) the British are defeated.
1802	The law that allows Ohio to become a state in the United States is passed. The law says that money from the sale of land in Ohio will be used to build a road from the east to the new state of Ohio.
1806	President Thomas Jefferson signs the law establishing the National Road.
1808	Congress approves funding for surveying the National Road.
1811	Construction begins on the National Road and the first 10 miles of road built.
1818	National Road is completed to Wheeling, Virginia. Mail stagecoach use of the road begins.
1830s	The federal government turns over responsibility of the National Road to the states through which the road runs.
1835	Pennsylvania accepts the National Road from the federal government. They have the federal government repair the road and provide money for the construction of tollgates and tollhouses.
1839	The National Road reaches Vandalia, Illinois, where construction of the road stops.
1852/1853	The Pennsylvania Railroad reaches Pittsburgh, Pennsylvania and the Baltimore and Ohio Railroad reaches Wheeling, Virginia. This new form of transportation will lead to the decline of the National Road.
1880	The safety bicycle is introduced, and the League of American Wheelmen push for better roads.
1926	The National Road becomes part of U.S. Route 40 as a coast-to-coast highway. In most places Route 40 is right on top of the National Road.
1960s	Route 40 is bypassed by Interstate 70.



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Resources appropriate for the upper elementary level:

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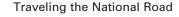
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Vocabulary

Abolitionist: Someone who worked to get rid of slavery.

Acrobat: A person who performs exciting gymnastic acts that require skill.

Agent: Someone who arranges things for other people.

Anvil: A heavy block of iron on which metals are shaped by hammering.

Arch: A curved structure.

Attractions: Interesting or exciting features.

Auction: A sale where goods are sold to the person who offers the most money for them. The person who sells the goods is called the auctioneer.

Audience: People who watch or listen to a performance or speech.

Barroom: The room in a tavern where alcoholic drinks were sold.

Bellows: A tool used to blow air.

Blacksmith: Someone who makes and fixes things made of iron.

Cast iron: A hard and brittle form of iron made by melting iron with other metals and then pouring the mixture into a mold.

Compete: To try hard to outdo others at a task, race, or contest.

Conestoga wagon: A large wagon with a cream or white cloth cover. The wagon bed was deep, turned up at each end like a boat, and painted red and blue. These wagons could carry up to 10,000 pounds and were pulled by teams of six to eight horses.

Congress: The governmental body of the United States that makes laws.

Convince: To make someone believe you.

Cotillion: A big dance.

Courthouse: A building where trials and government business is conducted.

Crops: Plants grown in large amounts, usually for food.



Traveling the National Road

Vocabulary

Debt: The amount of money that is owed to another business or person.

Drought: A long spell of very dry weather.

Drover: A person who walked farm animals such as pigs, sheep, cattle, or turkeys to market.

Duty: Something a person must do or ought to do.

Elect: To choose someone by voting.

Emigrant: Someone who leaves his or her home in order to live in another place.

Expand: To increase in size.

Forge: A special fireplace where metals are heated.

Freight: Goods or cargo that are carried by some form of transportation.

Frontier: The far edge of a country where few people live.

Funeral: The ceremony held after someone has died when the body is buried.

Gallop: To run as fast as possible, usually referring to a horse.

Glimpse: To see something very briefly.

Grief: A feeling of great sadness.

Grindstone: A special stone used to sharpen something.

Harness: A set of leather straps and metal parts that connects a horse to a stagecoach, wagon, or other vehicle.

Harvest: To gather in the crops that are ripe.

Hitch: To join something to a vehicle.

Hospitable: A way of treating guests so that they feel comfortable and at home.

Integrity: The act of being honest and sticking to what you believe in.

Intelligent: Smart, bright, quick to understand.

Inventor: Someone who thinks up or creates something new.



Traveling the National Road

Vocabulary

Legislature: A group of people who have the power to make or change laws.

Manufactured goods: Items that a made, often with a machine.

Mechanical: Having to do with machines or tools.

Merchant: Someone who sells things, usually in a store.

Mile Marker: A stone or metal post showing the distance in miles to or from a specific place.

Noble: A member of a family of high rank.

On duty: At work.

Outhouse: A small building with a seat over a pit used as an outdoor toilet.

Passenger: Someone besides the driver who travels in a vehicle.

Pitcher: A container with an open top for pouring liquids.

Pole: To push a boat across the water using a long pole.

Politician: Someone who runs for or holds a government office.

Postmaster: The head of the post office.

Privacy: The act of being away from other people or out of their view.

Profit: The amount of money left after all the costs of running a business have been subtracted from all the money earned.

Retire: To give up work.

"S" Bridge: An arched bridge directly across the stream or river with the approaching roads curving to meet it, giving the road an "S" shape.

Shallow: Not deep.

Sharpshooter: A person who drove wagons on the National Road for part of the year.

Shoe: To fit a horse with horseshoes.

Shrink: To become smaller.



Traveling the National Road

Vocabulary

Slavery: The system where one person owns another person.

Soothe: To calm someone who is angry or upset.

Speaker: Someone who gives a speech in public.

Splendid: Very beautiful or impressive.

Stable: A building where horses or cows are kept.

Stagecoach: A lightweight, flat topped, brightly painted coach pulled by four or six horses and used extensively on the National Road. People paid to ride these coaches from one town to another. The coaches had doors and windows.

Suspicious: Feeling something is wrong or bad, but having no proof.

Tavern: A place offering travelers food, drink, and a place to sleep.

Tavern keeper: A person who ran a tavern.

Transportation: A means of moving people and freight from one place to another.

Temporary: Lasting for only a short time.

Toll: A fee paid for using a road, bridge, or tunnel. The money collected on the National Road was used to repair and help maintain the road.

Tollhouse: A place where tolls were collected and the tollkeeper lived.

Tollkeeper: A person who collects tolls.

Tongs: A tool used to pick things up.

Traffic: Moving vehicles.

Utensils: Tools with a special purpose, often used in a kitchen.

Vise: A tool used to hold an object firmly in place.

Vote: To make a choice in an election.

Wagoner: A person who drives a wagon.





National Road Word Hunt

M	T	Е	M		G	R	A	N	T	D
	Α	M	O	T	U	0	P	В	O	W
N	J	R	W	Α	C	A	M	Е	L	S
S	S	Τ	A	V	K	D	Е	N	L	T
S	T	A	G	E	C	0	A	C	Н	T
В	W	Τ	O	R	S	E	L	Y	O	Н
R	K	A	N	N	В	Z	X	Q	U	E
	T	R	A	V	Е	L	Е	R	S	Т
D	Α	Т	R	N	D	R	0	V	E	R
G	M		L	E	M	A	R	K	E	R
E	P	Ν	A	T		0	N	A	L	M

Directions: Find these words (across and down):

Bed Horse Road Tavern
Bridge Meal Stagecoach Wagon

Bridge Meal Stagecoach

Drover Mile marker Tollhouse

Emigrant National Traveler