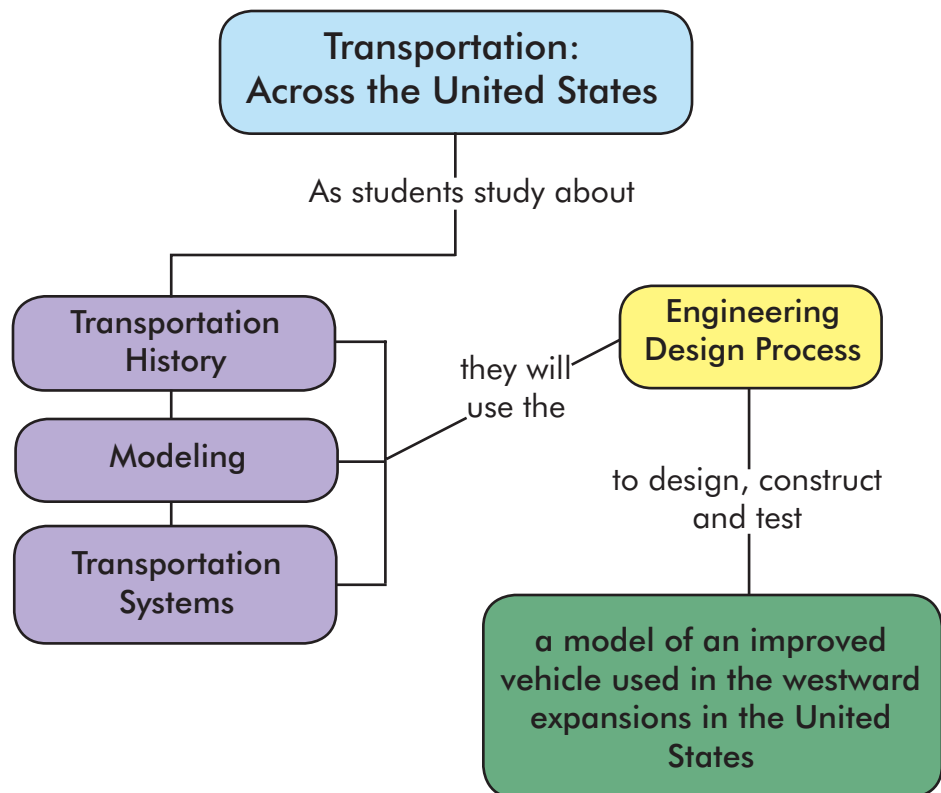


Transportation: Across the United States

This unit integrates the study of technology, science, and mathematics through the exploration of transportation systems during the development of the United States.



Conducting the Unit

Notes:

The unit is divided into four major topics. Each topic varies in length and scope depending on the schedule and length of teaching time. A suggested time allotment is provided for each unit.

Topic I: History of Transportation (1 - 1 1/2 hours)

1. Conduct a "Think-Pair-Share" with the class.
 - ✓ Think topic: "Since the early 1800s, how has transportation changed in the United States. What are some impacts of these changes?"
 - ✓ Pair: Discuss it with a partner and write down three major changes.
 - ✓ Share: Discuss this as a class.
2. Hand out the *Transportation Timeline* found on page 31. Give students a few minutes to look over the timeline, then ask questions such as:
 - ✓ What was the first recorded land transportation? Why do you think this was it?
 - ✓ When was water transportation first recorded? How has water transportation changed since then? What are some positive and negative impacts of these changes?
 - ✓ How has the development of air transportation changed modern day transportation? Are these changes good or bad?
 - ✓ Who is credited with the first recorded space transportation? Why has space transportation changed so rapidly compared with other forms of transportation?
3. Using the *Transportation Timeline*, have students individually complete the *Student Timeline Activity* sheet found on page 32. Students may choose to use a couple of the websites given on page 16 to further investigate their answers. Go over this in class, remembering that many of the answers will vary.
4. Discuss how the development of transportation spurred westward expansion. See pages 7-9 for more detail.



Topic II: Transportation Systems (1/2 hour)

1. Discuss transportation and transportation processes (scheduling and routing, loading, transporting, unloading, storing). (See the transparency on page 27.) Consider using the example of what types of





Transportation Vehicles



Name: _____ Class: _____

Look at the vehicles shown below and answer the questions about them.

What provides the propulsion for this vehicle?

How is the vehicle speed controlled?

How is the vehicle direction controlled?



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What provides the propulsion for this vehicle?

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How is the vehicle speed controlled?

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How is the vehicle direction controlled?

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# Transportation News



## Background

The exploration and settlement of America can be directly tied to advances in transportation such as the covered wagon, transcontinental railroad, pony express, overland stage, automobile, and passenger aircraft.

These advances, coupled with new communication systems and advances in agricultural technology, allowed people to spread out and live better lives in the United States.



## Design Challenge

Review the time line of events that took place during the settlement of the United States. Use the Internet to find more events than are listed. Select one transportation device or vehicle and (a) research its contributions, (b) draw a series of sketches for a prototype of the vehicle, and (c) build the prototype.



## Constraints

As you complete this activity, you should address the following restrictions and concerns:

- ✓ The vehicle must have made a contribution to the expansion and settlement of America.



- ✓ The prototype should closely function and resemble the actual vehicle being studied.
- ✓ The model must fit in a 12" cube.
- ✓ Create a presentation that emphasizes the development of the vehicle and its contribution to settling in the United States.
- ✓ The presentation should contain both text and illustrations.



A **timeline** is a table listing important events, developments, or advancements that took place in successive years within a historical period.