Transportation in the 1800s and 1900s
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OVERVIEW

Students will learn about the history of transportation in Colorado cities. They will understand the types of transportation and how changes in transportation affected the people and the way they lived. They can calculate differences in the rate of travel to the same destination and create a graph of the data using a computerized spreadsheet.

STANDARDS

- History Standard 4: Students understand how science, technology, and economic activity have developed, changed and affected societies throughout history.

- Reading and Writing Standard 5: Students will understand the structure, organization, and use of various media, reference, and technological sources as they select information for their reading and writing.

- Math Standard 5: Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.

OBJECTIVES

Students will be able to:
- Describe the impact of various forms of transportation in Colorado History on individuals, the local community and state.
- Recognize the organizational features of electronic information.
- Comprehend nonfiction material and use reading to solve problems.
- Construct, read, and interpret data in bar graphs.
- Compare and order objects according to measurable attributes.

INQUIRY QUESTIONS

- What kinds of transportation did city people use in the late 1800s and early 1900s?
- How did transportation in the cities change over time in Colorado?
- How have the changes in transportation affected the way Coloradans live?

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MATERIALS TO BE USED

- *Doing History/ Keeping the Past* CD-ROM disk or website: Cities Theme, Transportation topic, all subtopics
- Primary Sources which have been xeroxed and made into individual cards which are grouped to go with the CD-ROM disk or website photos and text:

<table>
<thead>
<tr>
<th>Subtopic</th>
<th>Photo(s)</th>
<th>Primary Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streetcars</td>
<td>1 &amp; 2</td>
<td>Horse Cars #1&amp;2, Paying the Fare</td>
</tr>
<tr>
<td></td>
<td>3 &amp; 4</td>
<td>The Cherrelyn Horse Car, More About the Gravity Car</td>
</tr>
<tr>
<td></td>
<td>4-7</td>
<td>Cable Cars, Trolley Cars, Trolley Rides</td>
</tr>
<tr>
<td>Wagons &amp; Carriages</td>
<td>1 &amp; 2</td>
<td>Express Wagons, A Vegetable Wagon, Delivery Wagons</td>
</tr>
<tr>
<td>Railroads</td>
<td>All</td>
<td>Early Railroad to Co. Springs, Excursion Trains</td>
</tr>
<tr>
<td>Early Autos</td>
<td>All</td>
<td>Denver’s First Speeding Ticket, Speed Limit 45</td>
</tr>
</tbody>
</table>

- *How Long Did It Take?* worksheet and spreadsheet
- Colorado state highway maps, ideally one per two students.

PROCEDURE

1. Introduce the lesson and assess prior knowledge by asking the Inquiry Questions.

2. CD-ROM disk or website use (options used depend upon number of computers and other management variables):
   - Classroom computer pod: A small group of students or an individual can research at the pod while other students are researching using other materials (literature, nonfiction books, etc.) or during Writers’ Workshop while others are doing other writing activities;
   - Classroom with projection device: Students view the photos as a whole class while teacher models process of note-taking, site navigation, etc.;
   - Lab setting; independent or paired research directly from the website or CD;
   - No classroom computers: print hard copies of the photos and text for students to use.

3. If students haven't already done so, divide the Primary Source readings among small groups or pairs to read, summarize, and share. Stress the importance of reading for main ideas and vocabulary.

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4. If students aren't already familiar with using the map to find distance between places, teach this skill.

5. Pass out the worksheet and have students complete it.

6. Model completion of the spreadsheet with the whole group using your own example. Be sure to talk about the formulas, decimals, and calculations.

7. Have the students complete the spreadsheet in pairs and copy their results on their worksheets.

8. Students may use a mental math, calculator, or paper and pencil to figure the difference between their predictions and the actual answers.

Extension: The data may be graphed using the graphing function built into the spreadsheet or on regular graph paper.

ASSESSMENT

- Have students write a short answer response to the prompt: How did changes in transportation affect the way Coloradoans live? Give one example. Grade for accuracy and any or all of the C-SAP skills or Six Traits being developed.
- Assess the worksheet and spreadsheet for accuracy as appropriate.