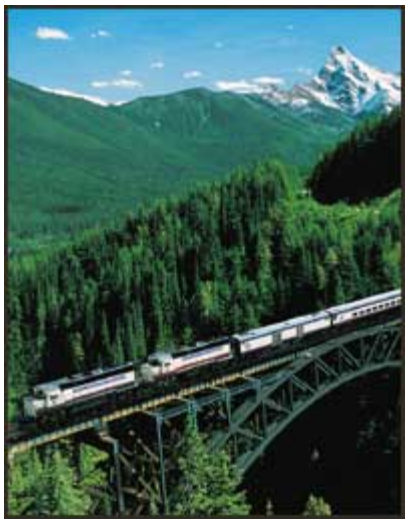

#10401
THE BIG TRAIN TRIP

BIG KIDS PRODUCTIONS, INC.,1999
GRADE LEVEL: 3–6
50 MINUTES
1 INSTRUCTIONAL GRAPHIC INCLUDED

DESCRIPTION

Travel across Canada by train from Toronto to Vancouver with two young boys. Visit the control center, maintenance area, dining car, and engineer, and learn some railroad history. See Canada from east to west and the magnificent Canadian Rockies. Contains many facts about trains and train travel. Has a long introductory advertisement.

ACADEMIC STANDARDS

Subject Area: Geography

- Standard: Understands the patterns and networks of economic interdependence on Earth's surface.
  - ♦ Benchmark: Knows the modes of transportation used to move people, products, and ideas from place to place, their importance and their advantages and disadvantages.

- Standard: Understands major discoveries in science and technology, some of their social and economic effects, and the major scientists and inventors responsible for them.
  - ♦ Benchmark: Knows the developments in rail transportation beginning in the 19th century and the effects of national systems of railroad transport on the lives of people.

- Standard: Knows the structure and operating principles of transportation systems.
  - ♦ Benchmark: Understands the development of transportation systems for the purpose of moving people, resources, and products.

BACKGROUND INFORMATION

Canada may be the only country in the world with a constitution linking its formation to the building of a railway. British Columbia threatened to join the United States if it was not given its own line, so four thousand miles of iron road

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was driven from the Atlantic to the Pacific. Trains have played a crucial part in Canada's history ever since.

The Champlain and Saint Lawrence Railroad was the first public railway in Canada. It opened in 1836 and ran between La Prairie and St.-Jean, Quebec on wooden rails with iron straps. It was decided to construct a coast-to-coast railway system. Work was started in both the East and the West, with the rails to link up in the middle. Once the railway was completed in 1885, settling the West became possible.

The first train to cross Canada was a Canadian Pacific Railway train that departed from Montréal's Dalhousie Station on the evening of June 28, 1886. It had taken 12,000 men, 5,000 horses, and 300 dogsled teams to build the railway.

INSTRUCTIONAL GOALS

1. To introduce the Canadian railway system.
2. To document the events of a train trip through Canada.
3. To observe the people involved in the operations of a train.

VOCABULARY

1. boarding
2. connect
3. Continental Divide
4. depot
5. diesel engine
6. dispatchers
7. Doppler effect
8. escalator
9. foot hills
10. freight train
11. horsepower
12. kilometers
13. locomotive
14. model
15. passenger
16. prairie
17. schedule
18. station
19. switching engine
20. time zones
21. wheel bearings
22. whistle

Discussion Items and Questions

1. Who are the “red caps”? What do they do?
2. How does a locomotive work?
3. What does the engineer do?
4. What is the Doppler effect?
5. Name the different cars of the train and what purpose they serve.
6. How fast does the train travel?
7. What affects how fast the train can move?
8. What is the VIA Maintenance Center? What

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happens here?
9. What makes the cars look like new when the trip is over?
10. Where does the train go after the passengers get off?

Applications and Activities

Students will be introduced to the opening of the Canadian West, the Canadian railway system, and the history of Canada. Teachers can help students:

- identify various aspects of the pioneer experience: economics, transportation, geography, social history;
- gain an understanding of the challenges and hardships of life as a pioneer; and
- make connections between historical events, such as settling the Canadian West and the coming of the railway, and how these events shaped Canada as we know it today.

Activities can include having students:

- research and write a report on the history of the Canadian rail system;
- take a field trip on a train to a nearby town, drawing parallels between American and Canadian railway systems;
- discuss the events and sites that the passengers encountered as they traveled across Canada;
- explain sound waves, and why sound changes for moving objects (see INSTRUCTIONAL GRAPHIC); and
- use a slinky, piece of string, or jump rope to illustrate sound waves and the difference in high and low pitch waves.

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INSTRUCTIONAL GRAPHIC

- THE DOPPLER EFFECT FOR A MOVING SOUND SOURCE

RELATED RESOURCES

Captioned Media Program

- *The Eastern Canadian Provinces* #3600
- *Canada: Its History, People & Government* #10399
- *Trains* #8927
- *The Western Canadian Provinces* #3681

World Wide Web

The following Web sites complement the contents of this guide; they were selected by professionals who have experience in teaching deaf and hard of hearing students. Every effort was made to select accurate, educationally relevant, and "kid safe" sites. However, teachers should preview them before use. The U.S. Department of Education, the National Association of the Deaf, and the Captioned Media Program do not endorse the sites and are not responsible for their content.

- **VIA RAIL CANADA**

http://www.viarail.ca
Contains schedules, route maps, and tourist information about the railway featured in the video. Explore both the train and Canada with virtual tours.

- **AMTRAK**

http://www.amtrak.com
A private company which, on May 1, 1971, began managing a nationwide rail system dedicated to passenger service. This link contains route maps, schedules, and fares for America's passenger train service.

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- **CENTRAL PACIFIC RAIL ROAD**

http://cprr.org/
A great historical event in transportation occurred on the continent in Promontory, Utah, on May 10, 1869, as the Union Pacific tracks from Nebraska joined those of the Central Pacific Railroad out of California. This site reflects a pictorial history of the Central Pacific Rail Road. Includes essays and stories from various sources.

- **SOCIAL STUDIES FOR KIDS**

http://www.socialstudiesforkids.com/subjects/railroadhistory.htm
Includes a historical timeline on the history of railroads in the United States, maps, and the people involved. Also includes links to how steam engines were invented, and how they work.

- **THE DOPPLER EFFECT**

http://www.glenbrook.k12.il.us/gbssci/phys/Class/sound/u11l3b.html
Explains the Doppler effect. Contains pictures and written explanations on the change in sound of moving object, and sonic booms.

- **PACIFIC SOUTHWEST RAILWAY MUSEUM**

http://sdrm.org
Contains a timeline history of the Pacific Southwest Railway. A nonprofit educational organization dedicated to the preservation and interpretation of railroads as they existed in the Pacific Southwest. SDRM is also a member of the Border Californias Museum Association. Offers an online history of railroads in general, with detailed attention paid to the San Diego area and to the San Diego and Arizona Railway, in particular.

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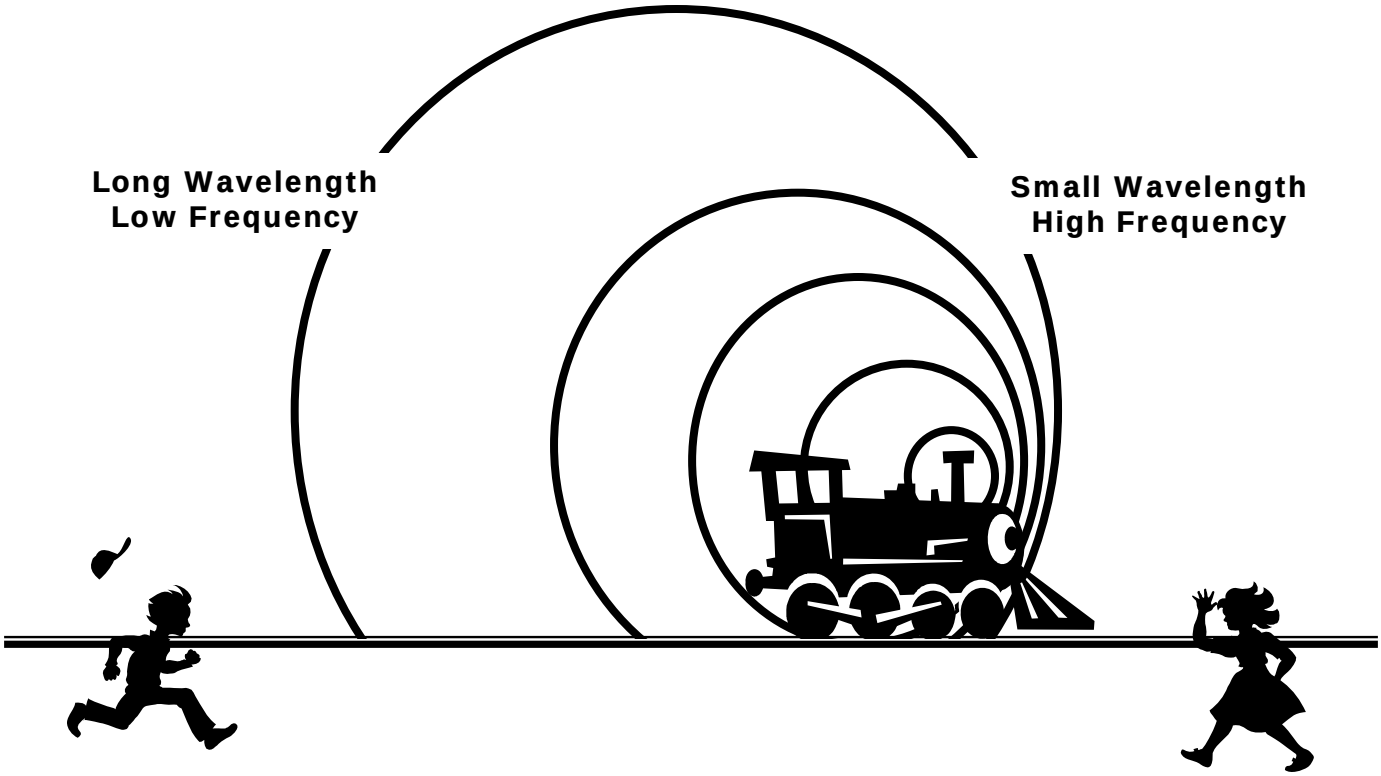
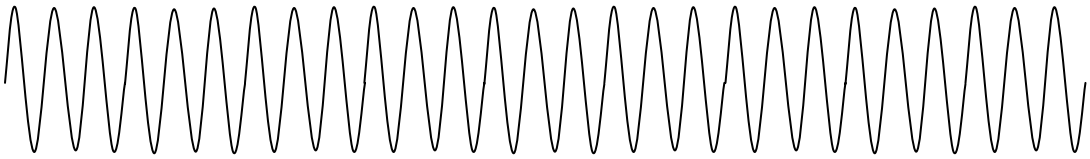
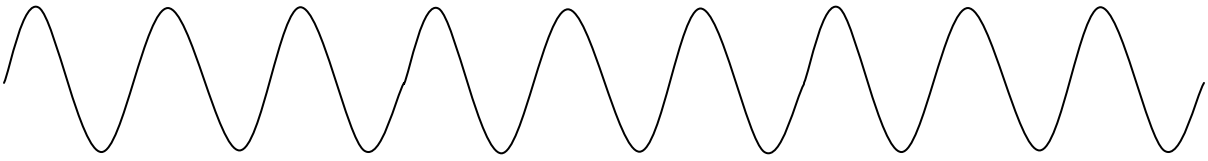
THE DOPPLER EFFECT
FOR A MOVING SOUND SOURCE



Before Train



After Train



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