

ALL ABOARD!

TRAINS IN HISTORY, FOLKLORE AND THE FUTURE
A Unit of Study for Grades K – 4



The Children's Museum
of Indianapolis

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Original illustrations by David Fortney

The Children's Museum of Indianapolis

The Children's Museum of Indianapolis is a nonprofit institution dedicated to providing extraordinary learning experiences for children and families. It is one of the largest children's museums in the world and serves people across Indiana as well as visitors from other states and countries. In addition to special exhibits and programs, the museum provides the **infoZone**, a partnership between The Children's Museum of Indianapolis and The Indianapolis-Marion County Public Library. The **infoZone** combines the resources of a museum with the services of a library where students can read, search for information and find the answers to their questions. Other museum services include the **Teacher Resource Link** that lends books, learning kits, artifacts and other materials to Indiana educators. Items may be checked out for minimal fees. For a complete catalogue, call (317) 334-4001 or fax (317) 921-4019. Field trips to the museum can be arranged by calling (317) 334-4000 or (800) 820-6214. Visit **Just for Teachers** at The Children's Museum Web site: **www.ChildrensMuseum.org**

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TRAINS IN HISTORY, FOLKLORE AND THE FUTURE
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Enduring idea:

Trains inspire our imaginations because they have transformed our communities and our way of life.

Trains changed our world like no other modern invention. They unified the country and helped to create towns and cities. Trains found their way into our music, literature and art. They created jobs, new ways of thinking and communicating and a whole new way of life. Although things have changed since the Golden Age of railroading, trains still capture our imaginations. Trains may even play an important role in our future.



What's Ahead?

★ Lesson One

Trainspiration!

Students experience American stories, legends and songs inspired by trains and railroad life.

★ Lesson Two

Trains and Your Town

Students learn how a special engine, The Reuben Wells, put Indianapolis and Madison, Ind., on the map and examine the ways that trains have transformed Indiana communities.

★ Lesson Three

Engines of Change

Students explore the connections between trains and the visual arts and examine the ways trains have changed. They also consider the changes trains may bring and undergo in the future.

Getting Started:

- **Family Connections** — Before beginning the unit, let families know the class will be studying trains. Family members may want to discuss train experiences at home.
- **Classroom Environment** — Create a rich environment by setting up a learning center with train models, pictures and artifacts. Play CDs or tapes of train music as students do routine activities, such as lining up for lunch, to set the mood.
- **Literature Connection** — Designate an area as the **Reading Roundhouse** with picture books and stories on trains and a place to display students' own writing. To begin the unit, read a story such as *Train Song* to present the topic of trains. Ask students what they know about trains and what they want to know.
- **Train of Thought Journal** — Introduce the idea of keeping a journal to record the things that students are learning and the topics they want to know more about. Students will use their journals to reflect upon each learning experience and focus on inquiry topics and questions. The journal will help guide an ongoing inquiry process that culminates in students' own train projects at the end of the unit.



What will students learn?

Indiana's Academic Standards

Unit experiences help students achieve standards in:

- Language Arts
- Social Studies
- Music
- Visual Arts

Unit lessons integrate Language Arts, Social Studies, Music and Visual Arts. Each learning experience is designed to address specific academic standards for Kindergarten, Grades One and Two and Grades Three and Four. The unit promotes the development of skills in research and inquiry and the use of information technology, data organization and communication skills. It encourages students to think of the connections across disciplines and time periods, from the past to the present and future.

Museum Links

Create a powerful learning experience for students by developing a relationship with a museum.

Museums serve as field sites where real objects and realistic environments motivate students to investigate a topic in depth. **The Children's Museum of Indianapolis** and the **Indiana Transportation Museum** provide children with hands-on train experiences. See the **Museum Links** section of the following lessons for suggested museum resources. Most of the print and audio selections listed in the **Resources** section of each lesson in this unit are available through the **infoZone**, a branch of the Indianapolis-Marion County Public Library located at The Children's Museum.

What will students be able to do?

***Remembering the Monon:** An F7 diesel-electric engine, commemorating the Monon Line, enters Arcadia, Ind., to pick up school children.*

Unit Objectives:

- ★ Increase their vocabulary, word recognition, reading and writing skills.
- ★ Identify different types of trains and train cars and explain how they are used.
- ★ Sing traditional songs about trains and railroad workers and consider the role these songs play in everyday life.
- ★ Examine the importance of train transportation to Indiana communities.
- ★ Explore the connection between trains, railroads and the visual arts.
- ★ Create train-related art works.
- ★ Speculate about the future of train travel in their community.
- ★ Plan a classroom inquiry project on a train topic.



Photograph courtesy of the Indiana Transportation Museum



lesson ONE

Trainspiration!

How do trains spark our imaginations?

Why do trains inspire us? Perhaps it is because they remind us of the romance and excitement of travel. Their speed and power touch our emotions. When we see a huge engine pulling many pieces of a train in unison we experience the poetry of motion and we hear the music of the rails. It is no wonder trains have influenced the way we express ourselves. They have inspired stories, legends, art, songs and poems since the time they were invented.

Autumn Train: Amtrak's "Capitol Limited" races through a fall landscape on its route between Washington D.C. and Chicago.



Photograph by Amtrak



Experience One:

Train Speak — How have trains influenced the words we use?

Students explore the ways that trains have become part of our language as they learn the functions of different parts of a train along with train vocabulary and expressions.

Objectives

Experience One will enable students to

- ★ Distinguish between freight and passenger trains.
- ★ Explain the purposes of different kinds of cars on a train.
- ★ Use train-related words and expressions in writing activities.
- ★ Improve word-recognition and writing skills.
- ★ Reflect upon what they have learned and record new ideas in their journals.

You will need ...

Materials:

- **Kindergarten** — The books *Train Song*, *Freight Train* and other picture books of trains, model or toy freight and passenger trains, 12" x 18" construction paper, crayons
- **Grades One and Two** — **Visual 1: Freight Train** and **Visual 2: Passenger Train**, card stock, construction paper
- **Grades Three and Four** — **Visuals 1 and 2**, construction paper, **Train Expressions** (page 11)

Time: Two to three 30-minute periods

Words: More powerful than a locomotive ...

Kindergarten, Grades One and Two

- Locomotive or Engine
- Passenger train — passenger car, baggage car, dining car, dome car
- Freight train — boxcar, refrigerator car, tank car, flatcar, gondola car, caboose

Grades Three and Four

- Train Expressions

Focus Questions:

Use these questions to help students focus on the key ideas in **Experience One**.

Kindergarten, Grades One and Two

- ? What is a locomotive or engine?
- ? What does it do?
- ? What is the difference between a freight train and a passenger train?
- ? What do different types of train cars carry?

Grades Three and Four

- ? What special words and expressions relate to trains?



Kindergarten:

A Carload of Words

Indiana's Academic Standards:

Language Arts – Standard 1: Reading-Word Recognition (K.1.1, K.1.2);
Standard 4: Writing Process (K.4.3); **Standard 5:** Writing (K.5.1).



Setting the Stage:

To make the unit an immersion experience for students, prepare an area of the classroom for train play. Have cardboard or plastic boxes that students can fill with blocks for freight cars, chairs for passenger cars, costumes to wear and old suitcases for luggage. One large box might be a ticket booth where “passengers” can buy a ticket. There should also be an area for toy trains, including a table with tracks and train sets. Set up the **Reading Roundhouse**, a quiet space for train stories and picture books. These areas should be available throughout the train unit. Play background music about trains, including “Down by the Station,” and take advantage of opportunities to talk about trains and what they do. For example, when lining up for lunch, practice making train movements and sounds.

Procedures:

To prepare for **A Carload of Words**, bring a model or toy train to school or ask students to bring toy trains that they have at home.

Day One

- ★ Read *Train Song* or another book and encourage students to tell the train-related words that they know.
- ★ Ask students: What is a **locomotive**? What does it do? How do we know?

The **locomotive** or **engine** pulls or pushes the cars in a train. It is usually the first car.

- ★ Use the models to help explain the difference in freight trains and passenger trains. Ask students: What does a freight train carry? What does a passenger train carry?

Day Two

- ★ Read *Freight Train* by Donald Crews or another picture book on trains to students.
- ★ Help students identify the front cover, back cover and title page of the book. Model reading the words from left to right and from top to bottom on each page.
- ★ Use additional picture books and toy trains to help students identify the different types of cars on passenger trains and freight trains.
- ★ Discuss the different types of things that a freight train might carry in these cars and the different types of activities that might take place in the cars of a passenger train.

Assessment:

Hand out paper and ask students to fold it in half lengthways (like a hotdog bun.) The paper should form a long tent that students can display on their desks or tables. Have each student draw a picture of a freight train on one side of the tent and a passenger train on the other. Have students place stickers of smiley faces or other people images on their passenger trains to indicate that this type of train carries people. Use assorted stickers of toys, food items (such as fruit) and other objects for their freight trains. Ask students to explain what each type of train carries.

Performance Criteria: Students should draw a passenger train and a freight train and use stickers to show that passenger trains carry people and freight trains carry things.

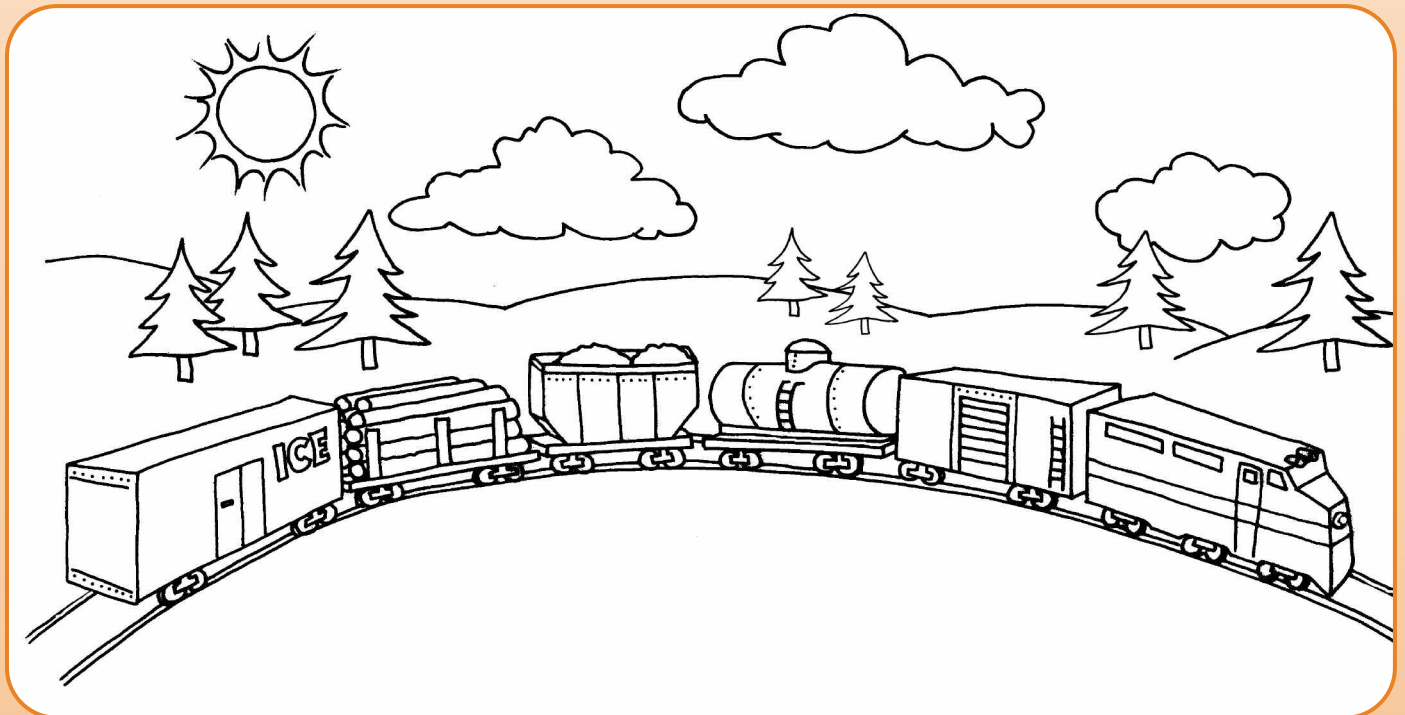
Photograph courtesy of Indiana Transportation Museum



Nickel Plate Road Steam Engine #587 crossing Main Street in Atlanta, Ind. The Indiana Transportation Museum staged this historic recreation for its Rail Fan Days celebration.

Train of Thought Journal:

Help students begin their own classroom *Big Book of Trains*. Students will contribute to the book as they continue to learn about trains. At the end of the unit, the book will become part of the **Reading Roundhouse**, where students can look through their books and reflect on what they have learned. Prepare a cover, title page and the first two pages of the book. On the first page write the words “freight train,” and “passenger train” on the second. Remind students of the parts of a book and the meaning of the words on the first two pages. To begin creating their books, students can take turns drawing pictures that relate to the words on each page. They can also use the “people” and “things” stickers to show what each type of train carries.





Grades One and Two: Word Train

Indiana's Academic Standards:

Grade One: Language Arts – Standard 1: Reading-Word Recognition (1.1.1, 1.1.2, 1.1.3); **Standard 5:** Writing Applications (1.5.4).

Grade Two: Language Arts – Standard 1: Reading-Word Recognition (2.1.3); **Standard 5:** Writing Applications (2.5.5).

Procedures:

Day One

- ★ After reading *Train Song* or another story, ask students to think of as many train-related words as they can. Make a list on the chalkboard.
- ★ Use the **Freight Train** and **Passenger Train** visuals to help identify different types of trains and train cars. Add these words to the chalkboard list.
- ★ Help students match the oral form of the word to its printed form and sound out words with more than one syllable.

Day Two

- ★ Discuss word meanings and ask students to suggest sentences about trains using the words.
- ★ Write several of the sentences on the chalkboard. Help students recognize that sentences start with capital letters and end with punctuation.
- ★ Ask students: How is a sentence like a “train of words”? Discuss the characteristics of a complete sentence.
- ★ Ask students how each of the sentences can be made more descriptive. Add student suggestions for descriptive words to the sentences.
- ★ Divide students into teams of three or four to play **Word Train**.

Assessment — Word Train:

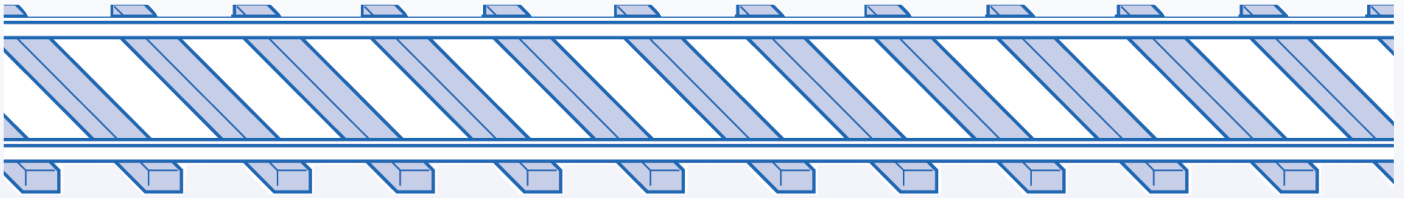
Prior to the game, the teacher should copy selected sentences from the chalkboard on strips of card stock and cut the sentence strips into pieces with one word on each piece. Give each team the pieces of one sentence strip. The goal of each team is to reassemble the sentence strip into a “word train” making a complete sentence.

Performance Criteria: Each team should assemble a sentence that uses train vocabulary and descriptive words. The sentence should be complete and should start with a capital letter and end with appropriate punctuation.



Hamilton Heights students board 1937 passenger coaches in Arcadia, Ind., for a historic ride with the Indiana Transportation Museum

Photograph courtesy of Indiana Transportation Museum



Train of Thought Journal:

Help students begin their journals by using construction paper to make the front and back covers and a first page. On this page students can copy the sentence that they like the best from the chalkboard or use the train vocabulary and descriptive words they have learned to create their own “word train.” Some students may want to illustrate the sentence with a matching drawing. Ask students to think about how they could write more descriptive sentences. What would they need to know about trains? How would they start to investigate?

Fair Train: Historic Nickel Plate Road steam engine #587 hurries southbound near Castleton as it carries passengers to the Indiana State Fair.



Photograph courtesy of Indiana Transportation Museum



Grades Three and Four: The Expressive Express

Indiana's Academic Standards:

Grade Three: Language Arts – Standard 4: Writing Process (3.4.3, 3.4.6, 3.4.8); **Standard 5:** Writing Applications (3.5.2, 3.5.4); **Standard 6:** Writing Conventions (3.6.1).

Grade Four: Language Arts – Standard 4: Writing Process (4.4.10); **Standard 5:** Writing Applications (4.5.5); **Standard 6:** Writing Conventions (4.6.1, 4.6.3).

Procedures:

Day One

- ★ After reading *Train Song* or another story, help students brainstorm as many train-related words as they can and develop a list. (See the Visuals and the Glossary for more words.)
- ★ Ask students if they have also heard of expressions that relate to trains. Expressions are phrases with special meanings that people use to communicate ideas. They usually have more than one meaning.
- ★ Introduce **Train Expressions**. Help students explore meanings and suggest sentences using the expressions. Write model sentences on the chalkboard.

Day Two

- ★ Divide the class into groups of three. Each group will write a descriptive paragraph about a train using words from the list and train expressions.
- ★ Have groups focus on one expression and its meanings and develop their idea for a paragraph around it. Help students brainstorm and model examples before groups begin their work. For example: 1. The Storytown Train roared down the track at lightning speed. It was going full steam ahead because... or 2. It was a terrible day when the Expressive Express got off the track ...

Assessment — The Expressive Express:

Each group will write a descriptive paragraph that develops a main idea and uses a topic sentence and supporting ideas. Groups will make their writing more expressive by using word choices that describe, explain and provide details. Each member should participate in the writing process.

Performance Criteria:

Each group will:

- Write a paragraph, legibly, in complete sentences.
- Use train vocabulary and at least one expression.
- Review and revise their writing for clarity and meaning.

Train of Thought Journal:

Help students begin their individual journals by making front and back covers and a first page. Have students choose their favorite train expressions and record them in their journals. Ask students to think about why we have so many train-related words and expressions in our language. What information about trains could help make their writing more exciting or descriptive? What would they like to investigate in more detail?



Train Expressions

- **To get off the track** — to get off the topic or to get the wrong idea (“Don’t get off the track when you explain your project.”) When trains get off the track it is a real problem!
- **One-track mind** — to think about only one thing. (“Joe has a one-track mind. Baseball is all he thinks about.”) When trains have to share a single track, only one train, going in one direction, can be on the track at a time.
- **Full steam ahead** — to do something with enthusiasm and as quickly as possible. (“Let’s go full steam ahead with our research projects!”) In the days of steam engines, engineers built up the pressure in the steam boilers in order to make the train go at maximum speed or “full steam ahead.”
- **On board** — to be informed about something or to be in agreement. (“If we want to take a field trip, the principal has to be on board.” This means the principal has to be informed and to agree, not that he or she has to go along.)
- **A train wreck** — a mess or a disaster. (“The baseball game was a train wreck! We lost 6 to 1.”) Before good communications technology was developed, train wrecks were common. Often, they really were disasters.
- **Asleep at the switch** — not paying attention. (“The other team got a home run because our outfielder was asleep at the switch.”) Before trains were routed electronically, a switchman had to throw a switch to put each train on the right track. If the switchman wasn’t paying attention or fell asleep, there might be a train wreck.
- **A carload** — a lot of something. (“Joe got a carload of books from the library.”) A freight car holds a large amount when it is full.
- **The green light** — to give approval. (“The principal gave our field trip plans the green light.”) Long before there were stoplights for cars, colored signal lights were used for trains. They are still used today. An orange or yellow light means to slow down and be ready to stop. A red light means stop. A green light means the train can go forward.

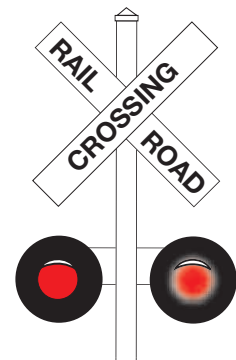
Can you think of more train expressions?

Tips for the Teacher:

Experience One allows students to identify the sounds of train words. Example: Help students think of words that rhyme with words like box (ox, fox) and car (far, star, bar). Students may want to experiment with rhyming words, listen to rhymes and poems or create their own rhymes. There is also a mystery to solve. Students may notice that the caboose is often missing from the trains we see today. What happened to the caboose? As students explore further in the unit, they will find out.

Bonus — Extending Experiences:

1. Cover a shoebox with brown paper or poster paints and decorate it like a boxcar with a flap cut in one side for the door. (A box without a top could be a gondola car.) Ask students to write or draw their favorite train word on a small piece of paper and place it in the box. Draw words and expressions from the box periodically and ask students to explain their meaning. This can be an ongoing game as the unit continues and students learn more words. Students may want to bring shoeboxes from home to make boxcars for their own “carload” of words.
2. Have students write or draw a “train of events” for the things that happen in a typical day at school or home.
3. Students may be interested in exploring the ways we communicate with people operating trains and how people on trains communicate with each other, including signs, hand signals, lanterns, telegraph, electrical signals and computers.





Resources:

For Children:

Crews, Donald. *Freight Train*. New York: Puffin Books, 1985. In this picture book, colorful illustrations and simple text describe the different cars of a freight train.

Brown, Margaret Wise. *Two Little Trains*. New York: HarperCollins Publishers, 2001. This picture book allows young children to link their lives to events in the outside world as they follow two very different trains on separate but related journeys.

Rogers, Hal. *Trains*. Chanhassen, Minn.: The Child's World, 2001. Color photographs of contemporary freight and passenger trains introduce trains and train vocabulary to beginning readers. *Trains* can also be a read-aloud selection for younger students.

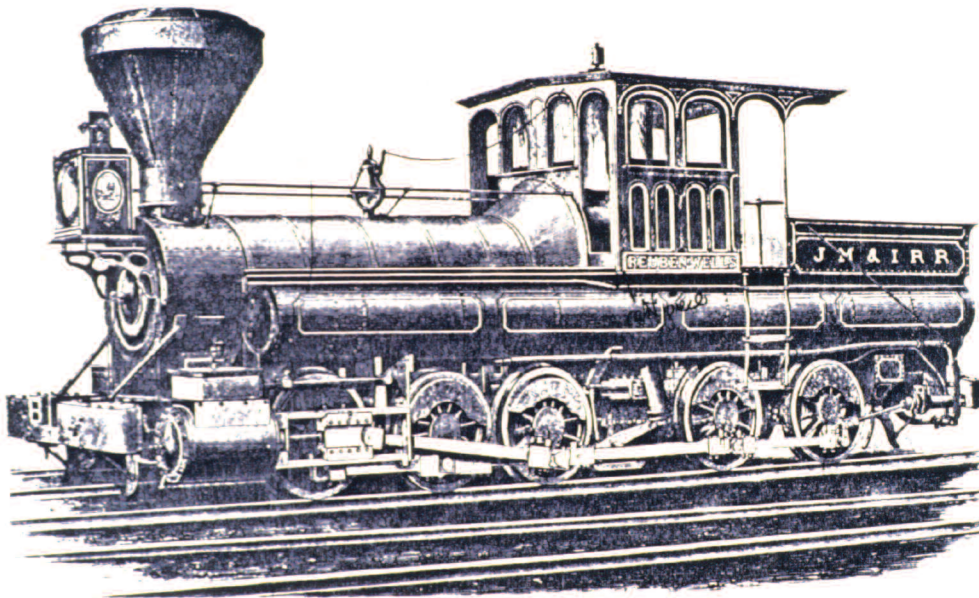
Siebert, Diane. *Train Song*. New York: Thomas Y. Crowell, 1990. This rhyming book captures sounds, sensations and movements as it introduces all types of trains. The beautiful illustrations help make it suitable as a read-aloud book or a reader.

Suen, Anastasia. *Window Music*. New York: Viking, 1998. The simple rhymes in this read-aloud book allow young children to experience the sounds of riding a train. The sights seen from the window are portrayed in colorful, imaginative illustrations.

For Teachers:

Jarrett, Les and Michelle Dawson Schneider. *The Alphabet Train*. Indianapolis: Railway Productions, 1998. Children learn the alphabet and develop vocabulary skills in this 60-minute video as they explore real trains and their sounds, train safety and railroad jobs.

Yepsen, Roger. *Train Talk: An Illustrated Guide to Lights, Hand Signals, Whistles, and Other Languages of Railroading*. New York: Pantheon Books, 1983. This resource conveys the colorful language of railroad culture.



The Reuben Wells

This pen-and-ink drawing of Indiana's most famous locomotive appeared in the British technical journal Engineering in February 1869.



Experience Two:

Reading Roundhouse —

What do stories about trains and train heroes tell us?

Students explore trains and train heroes as characters in stories, legends and folklore.

Objectives:

Experience Two will enable students to:

- ★ Identify the main characters and events in train stories and folklore.
- ★ Determine the main theme or message in stories.
- ★ Retell stories in their own words or summarize the main events in a story using a graphic organizer.
- ★ Consider why trains and the people who work on trains and railroads have become important characters in stories.
- ★ Examine the personal qualities of heroes in train stories and legends.

You will need ...

Materials:

- **Kindergarten** — Books, such as *The Little Engine That Could* or *Thomas the Tank Engine*, construction paper, crayons; **Visual 3: What a Character!**
 - **Grades One and Two** — Train books, such as *The Polar Express* or *Circus Train*; **Visual 4: Story Train** graphic organizer
 - **Grades Three and Four** — Children's books, such as the John Henry and Casey Jones stories; **Visual 4: Story Train** graphic organizer
- Time:** Two to three 30-minute periods

Words: More powerful than a locomotive ...

Kindergarten — Character

Grades One and Two — Plot

Grades Three and Four — Message, legend

Focus Questions:

Use these questions to help students focus on key ideas in **Experience Two**.

Kindergarten —

? Why do trains, especially locomotives, remind us of people?

Grades One and Two —

? Why is it fun to read stories about trains? Why do people write stories about trains?

Grades Three and Four —

? Why do we tell stories about the people who build railroads and work on trains?

? What kind of a person did it take to do these kinds of jobs in the past?

? What do you think it takes in the present?



Kindergarten:

What a Character!



Indiana's Academic Standards:

Language Arts – Standard 2: Reading Comprehension (K.2.2, K.2.5); **Standard 3:** Literary Response and Analysis (K.3.3); **Standard 4:** Writing Process (K.4.3).

Procedures:

Before beginning the experience, make sure the **Reading Roundhouse** has a good selection of stories and picture books on trains.

Day One:

- ★ Prepare students to listen to *The Little Engine That Could* or *Thomas the Tank Engine* by asking them to think about the sounds that a train makes. Do people ever make similar sounds? (For example, people might make huffing and puffing sounds when they are out of breath.) Have students practice making some train sounds, and then ask them to listen for sounds in the story.
- ★ Read the story aloud to students. Help students to use pictures and context to make predictions about story content.
- ★ Help students remember the train words they learned in **Experience One** as the story is read.

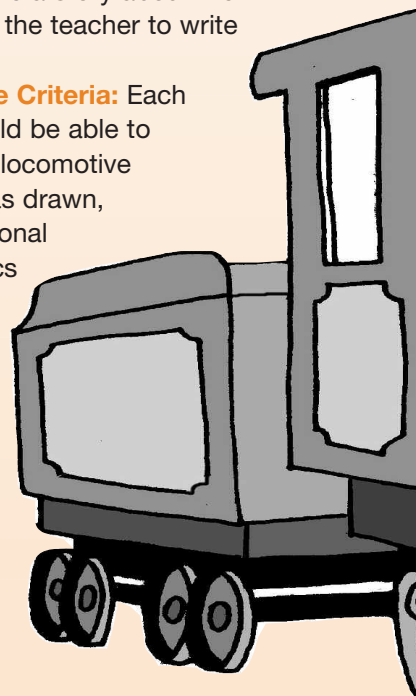
Day Two:

- ★ Review or read the story again. Ask students to tell who the story is about. Explain that this individual is called the main **character**.
- ★ Ask students to describe the main character: Does this character have a name? What does he or she look like? Why does this character seem like a real person?
- ★ Discuss the message of the story: How does the main character behave? What does the story say about the way people should behave?

Assessment:

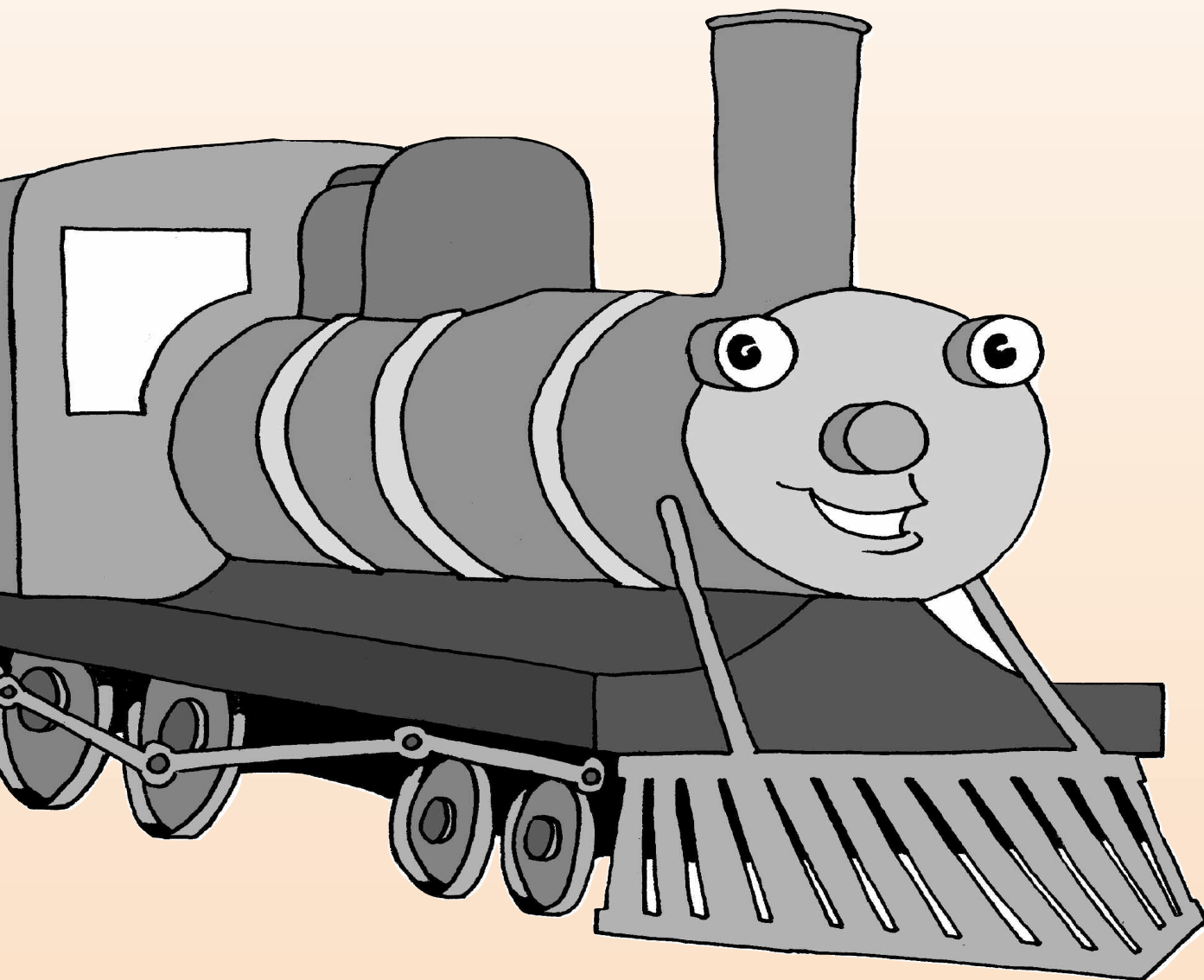
Give each student a copy of **Visual 3: What a Character!** Have students use markers to give the locomotive the features of a person, such as eyes, a nose and a mouth. Ask students to pretend their locomotive is a friend. What is this friend like? Have students give their locomotive character a name and write the name or the first letter of the name on their drawing. Some students may want to dictate a story about their character for the teacher to write down.

Performance Criteria: Each student should be able to describe the locomotive he or she has drawn, giving it personal characteristics and a name.



Train of Thought Journal:

Ask students to help create a locomotive character for the *Big Book of Trains*. Use **What a Character!** as a model for the locomotive. Ask students to suggest words, such as “happy,” “sad,” or “friendly” to describe this character. Write suggested words on a wipe-off board or the chalkboard and have students pick three words they like best. Use the same process to have students select a name. Draw the locomotive’s face with eyes, nose and mouth and write the name and descriptive words on the journal page. Encourage students to think about this question: Would this locomotive make a good character for a story? Later, students will be able to read this page and remember the character they helped to create. They may even want to make up their own stories and tell them to other students or an adult.





Grades One and Two: A Train of Events

Indiana's Academic Standards:

Grade One: Language Arts – Standard 2: Reading Comprehension (1.2.3, 1.2.6); **Standard 3:** Literary Response and Analysis (1.3.1); **Standard 4:** Writing Process (1.4.1, 1.4.2).

Grade Two: Language Arts – Standard 2: Reading Comprehension (2.2.5); **Standard 3:** Literary Response and Analysis (2.3.1); **Standard 4:** Writing Process (2.4.2).

Procedures:

Before beginning the experience, make construction paper cutouts of the locomotive and cars from **Visual 4: Story Train** graphic organizer. Save the cutouts for discussion of the plot. Set up the **Reading Roundhouse**, a story area with picture books and stories for beginning readers.

Day One

- ★ Prepare students to listen to a story, such as *The Polar Express* or *Circus Train*. Ask students to think about the title and guess what the story might be about. Read the story aloud, using pictures and key words to help students predict events.
- ★ Encourage students to discuss *who* the main character is, *where* the story takes place, *what* happens and *when* and *why* events happen.

Day Two:

- ★ Ask students to retell the main events in the story. Help students summarize the story by using the cutouts of the locomotive and cars to create a “train of events.”
- ★ Use magic markers to write the first event on the locomotive, middle events on the cars and the last event on the caboose. Help students to arrange events in order so that the story has a beginning, middle and end. Explain that this pattern or chain of events in a story is called the **plot**.
- ★ Arrange the locomotive and cars from left to right on the chalkboard or wall with painter's tape. Try mixing the cars up and have students rearrange them correctly.

Day Three:

Divide the class into groups of three or four to select a story from the Reading Roundhouse. Coach students as they help each other to use pictures and key words to identify main characters and events.



Assessment:

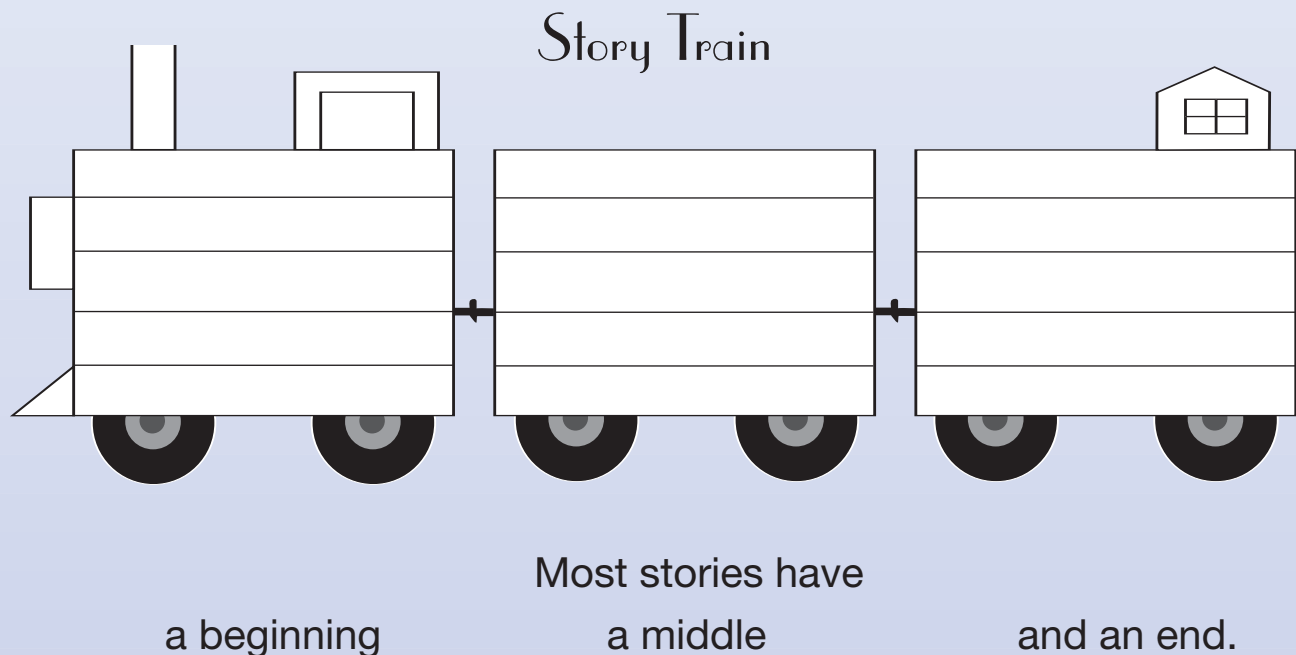
Each group will use the **Story Train** graphic organizer to organize and write down the main events of the story and create their own “train of events.” Bring the groups together to retell the selected stories. Have students discuss and compare the different plots, settings and characters.

Performance criteria:

- Each group should be able to use the graphic organizer to summarize the main events and retell the beginning, middle and end of the story.
- All group members should participate in summarizing, retelling and discussing the stories.

Train of Thought Journal

Have each student draw a picture that shows an event in the story they read as a group. Ask students to think about these questions: Why was the train important in these stories? Can you think of ways that trains might have been important to people’s lives in the past?





Grades Three and Four: Train Heroes and Legends

Indiana's Academic Standards:

Grade Three: Language Arts – Standard 2: Reading Comprehension (3.2.6); **Standard 3:** Literary Response and Analysis (3.3.2, 3.3.4); **Standard 4:** Writing Process (3.4.2); **Standard 5:** Writing Applications (3.5.1).
Grade Four: Language Arts – Standard 2: Reading Comprehension (4.2.2); **Standard 3:** Literary Response and Analysis (4.3.1, 4.3.2); **Standard 4:** Writing Process (4.4.4); **Standard 5:** Writing Applications (4.5.4).

Procedures:

Prior to the experience, prepare the **Reading Roundhouse**, a reading area with versions of the John Henry and Casey Jones stories and other legends or folktales.

Day One

- ★ Engage students in a dramatic reading or readers' theater of one of the stories. Stop periodically to recall major points in the text and make predictions about what will happen next. Help students to identify exaggerations and fantasy elements.
- ★ Ask students to describe the main character and events of the story. Discuss the effects of major events on the outcome of the story.
- ★ Have students identify what problem or crisis the main character faced and the main message of the story. The **message** is the underlying theme or idea.

- ★ Ask students to identify personal qualities of the main character. Ask them to decide: Is this person a hero? Why or why not?

Day Two

- ★ Review the main events of the story.
- ★ Explain to students that stories like the ones about John Henry are called legends. A **legend** is an imaginative story from the past that may have some basis in history, although this is difficult to determine.
- ★ Discuss how a legend is similar to and different from other imaginative stories. Do students think that the John Henry and Casey Jones stories are based on real people and real incidents in the past?

Why? Where and how could they look for clues? How could they find out if there is any historical evidence to support these stories?

Day Three:

- ★ Divide students into groups of three to four and take turns visiting the reading area to read one of the stories from the **Reading Roundhouse**.



Assessment:

After all the groups have read a story, each group will use the graphic organizer to write a summary of the plot. Bring the groups together to discuss and compare the plots.

Performance Criteria: Each group should be able to:

- Use the graphic organizer to produce an outline of the story, including a main character and a series of major events.
- Organize their story summaries so that they have a beginning, middle and end.

Train of Thought Journal:

Have each student write a brief summary of one of the stories for the journal. Ask students to consider these questions: Why did the people who built railroads and operated trains become characters in legends and tall tales? What do these stories tell us about ourselves and our country?

John Henry: The story of John Henry has inspired artists working in many different art forms and media. Ask students what ideas this work conveys about John Henry. They may want to create their own image of the steel-driving man using an art form such as sculpture, drawing, painting or collage.



Stephen Mathew Hall, John Henry, 1998. Mixed media.



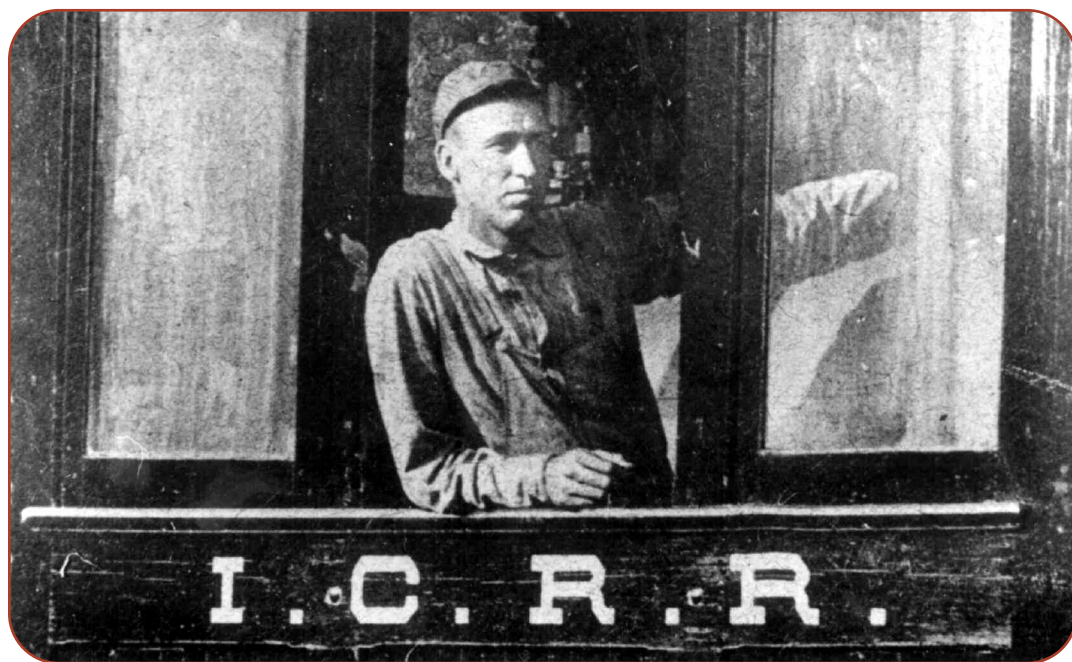
John Henry and Casey Jones

For a long time, trains have inspired the imaginations of storytellers. There are many stories for children in which a train or a locomotive is the central character or plays an important role. Stories of trains and heroic railroad workers have become part of our folklore. Legends, like that of John Henry, take place in a historical context and often contain exaggerations and elements of fantasy. Actual events, individuals or circumstances may have inspired some legends. Usually these stories come from unknown authors and are handed down from one storyteller to another long before they are ever written down.

The Casey Jones story is based on the accounts of people who survived the famous train wreck. The real John Luther Jones was born in 1863 near Cayce, Ky. He became known as Casey while working on the Illinois Central Railroad. Early versions of the John Henry story originated from an African-American ballad. Several states in the eastern half of the United States claim John Henry and his legend. We may never know if the story is based on historical events. We do know that between 1870 and 1873 the Big Bend Tunnel on the Chesapeake & Ohio Railroad was built through the Allegheny Mountains in West Virginia, a site mentioned in several versions of the ballad. The Coosa Mountain Tunnel, built from 1887 to 1888 near Birmingham, Ala., is another potential site. We also know that in those days many hard-working people, like “the steel-driving man,” risked their lives in dangerous jobs. They must have felt a sense of pride in their work. At the same time, machines were beginning to take the place of human workers in factories, farms and railroads. The John Henry and Casey Jones legends tell us that, no matter what, human strength and courage make a difference.

Tips for the Teacher:

In **Experience Two**, students learn how to recognize the main characters and events in a story. Using a graphic organizer of some sort is a good way to help them identify and summarize major events and begin to consider the relationship that events in a story have to each other. Stories usually have three major parts: The beginning introduces the main characters, the setting and an event that sets the plot in motion. The middle introduces complications or a problem that leads to a crisis. The end brings a resolution to the problem and a conclusion to the story.



The only known authentic photograph of Casey Jones in the cab of an engine, taken in 1898. This locomotive, #638, was not the one involved in the famous train wreck.

Photograph by J.E. France, the Bruce Gurner Collection, Water Valley Casey Jones Railroad Museum.

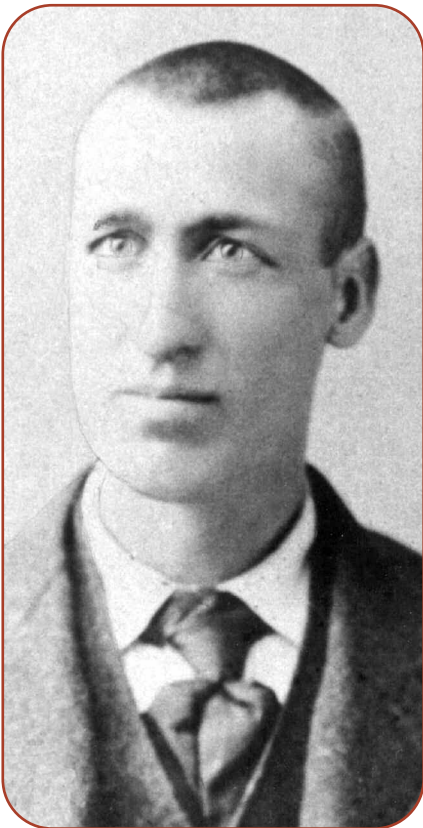


Bonus: Story Train

Extend students' experience by using the **Story Train** to create their own stories.

1. Have Kindergarten students make up and tell a story about the locomotive character they have drawn. The teacher or another adult can write down the story. (**Language Arts** K.4.2)
2. Older students can use the graphic organizer to plan and then write their own legend about a train or train hero. Students should review, evaluate and revise their own work. (**Language Arts** 1.4.3, 1.5.1, 2.4.6, 2.5.1, 3.4.6, 3.5.1, 4.4.10, 4.5.1)

Photograph by J.E. France, the Bruce Gurner Collection, Water Valley Casey Jones Railroad Museum.



Portrait of Casey Jones taken from a composite of the Water-Lily Lodge, Brotherhood of Locomotive Firemen membership in 1897.

Resources:

For Children:

Awdry, The Reverend W. *Thomas, the Tank Engine*. New York: Random House, 2000. This classic story was first published in England in 1946. The text and illustrations in this edition are true to the original.

Drummond, Allan. *Casey Jones*. New York: Frances Foster Books, 2001. Rhythmic language and illustrations tell how the famous engineer gave his life to save others.

Keats, Ezra Jack. *John Henry: An American Legend*. New York: Alfred A. Knopf, 1987. This version of the legend, illustrated by the author, includes some of John Henry's earlier adventures.

Lester, Julius. *John Henry*. New York: Dial Books, 1994. This humorous telling of the story is based on several versions of the John Henry ballad and includes historical background, as well as beautiful illustrations by Jerry Pinkney.

Jensen, Patsy. *John Henry and His Mighty Hammer*. Mahwah, N.J.: Troll Associates, 1994. This simple telling of the John Henry story has details not found in other versions, such as John Henry's marriage to his wife, Polly Ann.

Piper, Watty. *The Little Engine That Could*. New York: Platt and Munk, 1990. This is a reissued edition of the 1930 classic, including illustrations by George and Doris Hauman.

Smith, Joseph A. *Circus Train*. New York: Harry N. Abrams, 2001. Timothy finds an imaginative way to rescue a stranded circus train and make some new friends.

Van Allsburg, Chris. *The Polar Express*. Boston: Houghton Mifflin, 1985. In this well-loved Christmas classic, a mysterious train transports a boy to the North Pole, where he receives a special gift. Illustrations by the author add to the beauty of the story.

For Teachers:

Water Valley Casey Jones Railroad Museum. For the real story of Casey Jones, including photographs and newspaper accounts of the day, visit the museum Web site. www.watervalley.net/users/caseyjones/home.htm



Experience Three:

The Music of the Rails — What do songs tell us about trains?

In this experience, students develop skills in performing a song together and explore the meaning of the sounds and words of traditional train songs.

You will need ...

Materials:

- **Visuals 5, 6 and 7:** music and lyrics to traditional songs:
Kindergarten — “Down by the Station”
Grades One and Two — “I’ve Been Working on the Railroad”
Grades Three and Four — “John Henry”

- CDs or tapes of train songs

Time: Two 30-minute periods

Objectives:

Experience Three will enable students to:

- ★ Increase their vocabulary by learning and using train-related words.
- ★ Sing simple traditional songs from memory with a group.
- ★ Sing together on pitch with appropriate beat, dynamics and phrasing.
- ★ Consider the ways songs are used in everyday life.
- ★ Examine the messages in songs, like the ballad of John Henry.

Words: More powerful than a locomotive ...

Kindergarten — Station, stationmaster, pufferbellies

Grade One and Two — Railroad, a cappella (without accompaniment)

Grades Three and Four — Rhythm, melody, lyrics, ballad

Focus Questions:

Use these questions to help students focus on key ideas in **Experience Three**.

Kindergarten —

- ? Why is it fun to sing about trains?

Grades One and Two —

- ? Why do people make up songs about trains and railroads?
- ? How are traditional songs similar to and different from popular songs today?

Grades Three and Four —

- ? How can a song tell a story?
- ? How has music been used in everyday life in different times and cultures?

Kindergarten: See the Little Pufferbellies!

Indiana's Academic Standards:

Music – Standard 1: Singing alone and with others (K.1.1, K.1.2).

Language Arts – Standard 7: Listening and Speaking (K.7.4).

Procedures:

Prior to this experience, prepare students by playing “Down by the Station” during routine activities, such as lining up for lunch, for several days.

Day One

- ★ After students have been listening to “Down by the Station” over a period of time, remind them that the song is about trains.
- ★ Play “Down by the Station” on tape or CD. Have students listen and line up like train cars and march around the room, making train movements in time to the music.
- ★ Help students sing the song together, maintaining a steady beat.

Day Two

- ★ Practice singing the song and imitating the sounds the train makes, such as “chug-chug” and “toot-toot.”

- ★ Help students identify train words in the song, such as **station** and **stationmaster**. Can they guess what **pufferbellies** are?
- ★ Have students identify individual words and individual sounds in the words and find rhyming words, such as “row” and “go.”
- ★ Ask students to discuss why it is fun to listen to and sing train songs. How do the songs make them feel?
- ★ Repeat singing the song at the beginning and end of class and during routine activities over several days until students are familiar with the words and melody.

Assessment:

After practicing the song over a period of time, all students will participate in singing the song together.

Performance Criteria: Students should be able to:

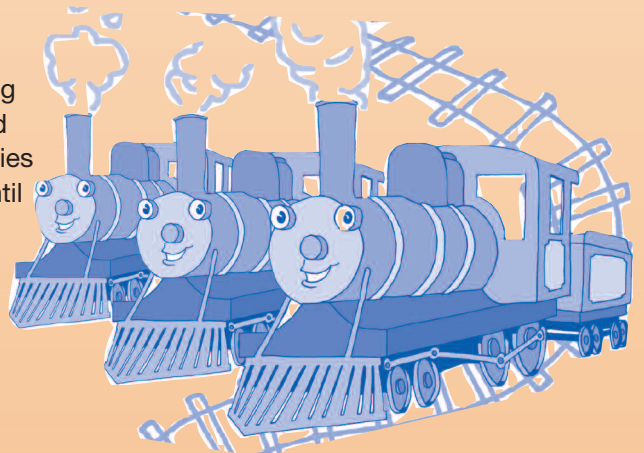
- Sing the song together accurately and maintain a steady beat.
- Imitate train sounds and movements.

Train of Thought Journal:

Add the words to “Down by the Station” to the Big Book of Trains.

Visual 5 can serve as a model. Use one page for each line of the song. Remind students of the words to the song and ask them to draw pictures that go with the words.

Family Connection: Send the words and music to “Down by the Station” home with students. Families may enjoy singing the song together.





Grades One and Two: Singing on the Railroad

Indiana's Academic Standards:

Grade One: Music – Standard 1: Singing alone and with others (1.1.2, 1.1.4); **Standard 6:** Listening to, analyzing and describing music (1.6.2); **Standard 8:** Understanding music in relation to history and culture (1.8.3).
Language Arts – Standard 1: Reading (1.1.1, 1.1.2).
Grade Two: Music – Standard 1: Singing alone and with others (2.1.2); **Standard 6:** Listening to, analyzing and describing music (2.6.1); **Standard 8:** Understanding music in relation to history and culture (2.8.1).
Language Arts – Standard 1: Reading (2.1.8).

Procedures:

Day One

- ★ Play “I’ve Been Working on the Railroad.” Have students listen and identify high and low pitches by using hand motions.
- ★ Practice singing the song together a cappella. Help students sing on pitch, maintain the beat and use appropriate dynamics and phrasing.

Day Two

- ★ Place the lyrics on the overhead projector and help students match oral words to printed words and identify letters, words and sentences. Identify compound words, such as **railroad**.

- ★ Discuss the meaning of the words with students. This may have been a “work song” sung by people building America’s railroads more than 100 years ago.
- ★ Have students listen for the rhythmic patterns in the music. Do the patterns remind them of the sounds they might hear as workers swing their hammers?
- ★ Have students compare a favorite song from the present with “I’ve Been Working on the Railroad.” How are the two songs similar and different?

Assessment:

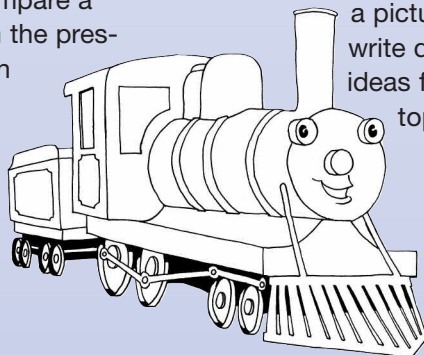
After practice, all students will participate in singing the song together.

Performance Criteria: Students should be able to:

- Sing the song a cappella while remaining on pitch.
- Maintain the beat and use appropriate dynamics and phrasing.
- Discuss the meaning of song lyrics and possible uses of the song in the past and present.

Train of Thought Journal:

Ask students to think about why people building the railroads created and sang songs about their work. Ask students: If you were going to sing a song about your work at school what would you sing about? Would your song be happy or sad? How could it help you in your work? For their journal entry, students can write down their song with teacher help, draw a picture of their song, or write down or draw their ideas for song topics.



Grades Three and Four: Steel-Driving Man

Indiana's Academic Standards:

Grade Three: Music – Standard 1: Singing alone and with others (3.1.2, 3.1.3); **Standard 8:** Understanding music in relation to history and culture (3.8.1, 3.8.2). **Language Arts – Standard 3:** Literary response and analysis (3.3.1, 3.3.2).

Grade Four: Music – Standard 1: Singing alone and with others (4.1.1, 4.1.4); **Standard 8:** Understanding music in relation to history and culture (4.8.1, 4.8.2). **Language Arts – Standard 3:** Literary response and analysis (4.3.2, 4.3.5).

Procedures:

Day One

- ★ Remind students of the stories of John Henry that they read in **Experience Two**. Explain that these stories were based on earlier songs.
- ★ Using a CD or **Visual 7** introduce students to the ballad of “John Henry.” African-American musicians first sang this traditional song.
- ★ Practice singing “John Henry” with appropriate dynamics and phrasing.

Day Two

- ★ Use **Visual 7** to help students read and analyze the story of John Henry. A poem or song that tells a story is called a **ballad**.
- ★ Ask students how the events in the book they read compare to the events in this version of the song.
- ★ Have students find clues that indicate when the story takes place. Can they identify exaggerations (hyperbole)?
- ★ Ask students to consider why African-American people passed this song on to others. Why was John Henry a hero to them? Is he still a hero to people today?

Assessment:

After practice, all students should be able to participate in singing the song together.

Performance Criteria: Students should be able to:

- Sing the song a cappella using appropriate phrasing and dynamics.
- Summarize major events in the John Henry ballad.
- Use musical terms and vocabulary.

Train of Thought Journal:

Ask students to reflect on one of these questions in their journal entry:

1. Were the people who built railroads heroes? Why or why not?
2. Do you have a hero? If you were writing a song about this person, what important qualities or accomplishments would you include? Write your own story or song about this person.



Tips for the Teacher:

Experience Three helps students develop skills in performing vocal music as they consider the role music plays in everyday life. This is an excellent opportunity to work with the music teacher as students are introduced to new songs and musical works from other cultures. Students of all ages will enjoy singing “Down by the Station” as an “echo” song or as a round. As students in Grades One and Two learn “I’ve Been Working on the Railroad,” they can begin learning work songs from other cultures and times. The tradition of singing work songs to make hard, cooperative labor easier came to America from Africa. Workers improvised and mixed preexisting lyrics and melodies to match the rhythm of the specific job. The origins of this song are unknown. It may be based on folksongs of the Irish and African-American workers building railroads in the last half of the 19th century. The workers were organized in work crews or “gangs” under the supervision of a leader, called a “captain.” “Dinah” may be the camp cook who blows a horn to call workers to meals.

The story of John Henry is presented here in one of its early musical versions. John Henry was a steel driver who did the dangerous job of pounding holes into solid rock so that a railroad tunnel could be blasted with dynamite. The song may have begun as a series of short stanzas sung by African-American railroad workers. It eventually evolved into a long ballad with many versions and stanzas that were handed down from one worker or musician to another. This version was first written down around 1900 and probably was based on earlier songs. Because it is so long, only a few stanzas are provided. See **Resources** for Web-based John Henry sources.

Bonus: Extending Experiences

Have students:

1. Use musical instruments or objects from the classroom to create a rhythmic pattern that sounds like a train. (**Music – Standard 5: K.5.1, 1.5.1, 2.5.2**)
2. Create a class song about work at school to the melody of “I’ve Been Working on the Railroad.”
3. Create a work song, a song about a famous person or a short song based on a story. Help write the words or the melody. (**Music – Standard 5: 3.5.1, 4.5.1**)

John Henry

Traditional

When John Hen-ry was a lit-tle ba-by, sit-ing on his ma-ma's knee, well he

6 picked up a ham-mer and a lit-tle piece of steel. Said, "I'm gonna be a ste-el

9 dri-vin' man. Yes, I'm gonna be a ste-el dri-vin' man."



Resources

For Children:

KIDiddles serves kids, parents and teachers with a large database of children's songs, including "Down by the Station" and "I've Been Working on the Railroad." The Web site also provides games, stories, jokes and a space for kids to share their original compositions:

www.kididdles.com/mouseum/index.html

For Teachers:

- Agay, Denes (ed.). *Best Loved Songs of the American People*. Garden City, N.Y.: Doubleday, 1975. Scores, lyrics and historical background on a large number of traditional American songs.
- Denver, John. *All Aboard!* New York: Sony Wonder, 1997. *All Aboard!* is an album for families based on a train theme. It has 14 tracks, including traditional songs (such as *I've Been Working on the Railroad*) as well as more recent compositions.
- Roth, Kevin. *Train Songs & Other Tracks*. San Diego: Stargazer Productions, 1998. Trains and train life are the theme of this CD selection of 15 songs. Many are old favorites but some are newer songs by Roth.
- *The Wee Sing Train*. Universal City, Calif.: MCA Universal Home Video, 1995. Based on *Wee Sing Silly Songs* by Pamela Conn Beall and Susan Hagen Nipp. This 58-minute video recording has 19 children's songs, including "Down by the Station" and "I've Been Working on the Railroad."

Web Sites:

- Casey Jones Railroad Museum State Park. The museum, located in Vaughan, Miss., maintains an "online museum" on its Web site. Click on "Archives" to see historic photos and documents about the train wreck, along with a version of the Casey Jones ballad:
www.trainweb.org/caseyjones
- Cultural Arts Resources for Teachers. The CARTS Web site is an extension of the National Network for Folk Arts in Education. Guest artists are featured along with samples of their work and teaching suggestions. One such artist is John Cephas, a Piedmont Blues musician noted for singing the John Henry ballad. Lyrics and a music sample are included: **www.carts.org/carts_artist4.html**
- This site provides historical background and resources on the John Henry legend, including several early versions of the ballad:
www.ibiblio.org/john_henry/index.html

Museum Links at The Children's Museum:

Visit the All Aboard! gallery to see a variety of model locomotives and cars representing trains throughout history. Students can see The Reuben Wells, an actual 1868 steam engine, and board a tool car from the same period. Inside the tool car, students can experience the sounds of a steam train ride or see a four-minute video on the gandy dancers, African-American workers famous for their ability to align railroad tracks and for their inventive work songs. During special events, students can also meet John Henry, portrayed by a first-person interpreter.

Photograph by Amtrak



Dinner on Board: Passengers enjoy a meal in the Amtrak Superliner Dining Car.



Mitchell A. Markovitz, 1998. Oil on canvas.



Chicago's Neighboring South Shore: In this poster, artist Mitchell Markovitz skillfully uses perspective to show how the railroad relates to the communities it serves.



Lesson TWO:

Trains and Your Town

How have trains transformed our way of life?

This lesson allows students to explore trains and train-related jobs in the past and present and examine the importance of trains in their own community. Prior to the 1950s, the arrival of a train was a community event. Trains brought the mail, newspapers, refrigerated fruits and vegetables, and mail order items. They brought visiting relatives and new jobs. They allowed people to sell and buy more products and enabled them to visit cities and communities in their own region, as well as other places in the United States. They also allowed people to leave their hometowns and seek a new life in another place. Sometimes the lonely sound of a train whistle reminded people of a loved one far away.

The Train Is in Town! – A Norfolk Southern freight train passes Riehle Plaza in downtown Lafayette, Ind.. For 140 years, railroad tracks cut across the city. Recently, Norfolk Southern worked with city and state government to create a new rail corridor along the Wabash River.



Jim Sinclair, 2003. Courtesy of Norfolk Southern Railroad.



Experience One

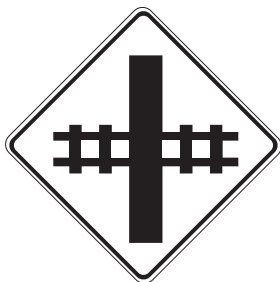
Going Places — How do trains help us go places?

Students explore trains and train-related jobs in the past and present and examine the importance of trains in their own community.

Objectives:

Experience One will enable students to:

- ★ Identify people and places in the community.
- ★ Identify train-related jobs and explain how these jobs help the community.
- ★ Find their own community on a map and show how it is connected to other places.
- ★ Identify ways that train transportation is important to their community and state.



You will need ...

Materials:

- **Kindergarten** — Picture books and storybooks, construction paper, crayons or markers
- **Grades One and Two** — Map of the local community or another community showing symbols of major cultural features. (See **Resources** for Web-based community maps.)
- **Grades Three and Four** — Physical map of Indiana (See **Resources**); **Visual 8: Map of Indiana**, showing rivers, major cities and regions, and **Visual 9: Railroad Map of Indiana**, showing the railroad system; map pencils or crayons.

Time: Two or three 30-minute periods

Words: More powerful than a locomotive ...

Kindergarten — Train station, railroad tracks, railroad crossing, stationmaster, engineer, conductor, signalman

Grades One and Two — Job responsibilities, goods and services

Grades Three and Four — Regions, trade, cardinal and intermediate directions

Focus Questions:

Use these questions to help students focus on key ideas in **Experience One**.

Kindergarten, Grades One and Two:

- ? What kinds of train jobs do people do? How do these jobs help the community?
- ? Does a train travel through or near your community? What does it carry? How can you find out more about trains in your community?

Grades Three and Four:

- ? Are trains important to your community today? Were they important in the past?
- ? What evidence can you find of the impact that trains have had on your community?

Kindergarten: Train Jobs

Indiana's Academic Standards:

Social Studies – Standard 3: Geography (K.3.3); **Standard 4:** Economics (K.4.2, K.4.3). **Language Arts – Standard 4:** Writing Process (K.4.3).

Procedures:

Day One

- ★ Remind students of the train songs and stories in Lesson One. Invite students to share their train experiences. Ask them if there are places in the community where they can see real trains.
- ★ Have students describe the places where they have seen trains. Help students to name and describe places such as a railroad crossing or train station.
- ★ Explain to students that trains were once very important in most communities and that many people had jobs working on the railroads and on trains.
- ★ Ask students if they can think of any train-related jobs. Most will probably be able to think of the engineer, stationmaster or conductor. Use the toy train sets in the room to demonstrate different types of train jobs.

Photograph by Alfred T. Palmer, 1942 — Library of Congress, Prints and Photographs Division, FSA-OWI Collection.

Day Two

- ★ Use storybooks and picture books to find more train jobs. Write the words on the chalkboard and help students to identify beginning letters and sounds.
- ★ Discuss what each train worker does.
- ★ Identify the places where these people do their jobs. For example, the stationmaster works in the train station. The engineer works on the train.

Engineer: *An engineer at the controls of a steam locomotive in the 1940s. This job required considerable training and experience.*



Assessment:

Pretend that different parts of the classroom are the places where train workers do their jobs. The play area might be the “train station.” The teacher’s desk and a row of chairs might be the “train” and two lines of painter’s tape on the floor could be the “railroad tracks.” Label these places with pictures and words. Each student should choose a job and match it to the work place by going to the appropriate area of the classroom. To help students understand the nature of their jobs, use props or costumes, such as a hat for an engineer, a bandanna for a brakeman or a suit jacket for a conductor. Have students tell about their jobs.

Performance Criteria: Each student should be able to:

- Match the job to the place where the job is performed.
- Briefly tell about the job.

Train of Thought Journal:

Culminate the experience by discussing these questions with students: What train job do you like the most? Why? Label pages of the *Big Book of Trains* with the words for different jobs, such as “Engineer,” “Stationmaster” or “Conductor.” Remind students of the meaning of these words. Ask them to draw pictures that go with the words.



Grades One and Two: Working on the Railroad

Indiana's Academic Standards:

Grade One: Social Studies – Standard 3: Geography (1.3.4); **Standard 4:** Economics (1.4.2, 1.4.3). **Language Arts – Standard 7:** Listening and Speaking (1.7.1, 1.7.4).

Grade Two: Social Studies – Standard 3: Geography (2.3.3, 2.3.4, 2.3.6); **Standard 4:** Economics (2.4.2). **Language Arts – Standard 7:** Listening and Speaking (2.7.1, 2.7.6).

Procedures:

This experience involves identifying the services that people in train jobs perform and how these services help the community. It should not be students' first exposure to the concepts of goods and services. See **Resources** for sources of preliminary Grade One and Grade Two economics activities.

Day One

- ★ Show students a map of the local community or a nearby community. (See **Resources** for Web-based maps.) Help them to identify symbols for key features, such as buildings, highways and railroads.
- ★ Explain to students that railroads have been very important for communities in the past because they provided jobs and helped transport people and products.
- ★ Remind students of the song that they learned, "I've Been Working on the Railroad."
- ★ Ask students how many jobs they can identify in the song. In addition to the jobs associated with building the railroad, what other jobs does it take to run a railroad?
- ★ Have students brainstorm train jobs. Write responses on the chalkboard or overhead and help them develop a brief oral description of each job.
- ★ List the jobs on the chalkboard and examine compound words, such as "signalman."

Day Two

- ★ Review previous learning about goods and services. Students should be able to identify goods that people use and familiar services that people perform in the school.

Photograph by Amtrak



Working on the Railroad:

A conductor takes tickets on an Amtrak Superliner coach. Today, women work in every railroad profession.

Goods are objects that people want, such as toys, foods and school supplies. A **service** relates to an action that someone does for someone else. For example: Apples produced by a farmer are goods. A cafeteria worker at school performs a service by serving the apples to students.

- ★ Review the train jobs that students identified on Day One, such as: engineer, conductor, stationmaster, steward, brakeman.
- ★ Most train jobs involve performing a **service**, such as operating a freight train that delivers goods to people or taking care of people on a passenger train.
- ★ Ask students to determine what kind of service each job involves.

Jack Delano, 1943 — Library of Congress, Prints and Photographs Division, FSA-OWI Collection.



Switchman: A switchman gives the "go ahead" signal on an Indiana Harbor Belt Railroad train. Railroad jobs like this were important to the war effort during World War II.

Assessment:

Review the discussion of jobs and how they help the community. Create a "human chart" to assess what students have learned. On the left side of the chalkboard, write "Jobs." On the right side, write the label "How Jobs Help." Have partners stand side by side in front of the appropriate label. Ask the student on the "Jobs" side to describe the service this job involves. The student on the "How Jobs Help" side should be able to describe benefits to the community.

Performance Criteria: Each group should be able to:

- Describe the service involved in a train job.
- Explain how that job helps people in the community.
- Listen to others, speak clearly and stay on the topic during oral presentations.

Train of Thought Journal:

Ask students to think about this question: If you worked on the railroad, what job would you like to do? Why? Students can write in their journals or draw a picture to explain why they would like this job.

Family Connection: Let family members know that the class is studying train-related jobs. At home, students may want to talk with family members about their jobs to find out what kinds of goods and services they provide and how these jobs help the community.

- ★ Discuss how all of these jobs help people in the community.
- ★ Divide the class into groups of two. Assign each group a train job. One student should be able to describe the job and tell what kind of service it involves. The second person should explain one way the job helps people in the community.

Jack Delano, 1943 — Library of Congress, Prints and Photographs Division, FSA-OWI Collection.



Brakeman: A rear brakeman inspects each car before a Chicago and Northwestern Railroad train pulls out of the yard.



Grades Three and Four: A Train Runs Through It

Indiana's Academic Standards:

Grade Three: Social Studies – Standard 3: Geography (3.3.3, 3.3.6),
Standard 4: Economics (3.4.3).

Grade Four: Social Studies – Standard 3: Geography (4.3.5, 4.3.9),
Standard 4: Economics (4.4.3).

Procedures:

Day One

- ★ Give each student a copy of **Visual 8: Map of Indiana** showing rivers, major cities and three major regions: North, Central and South.
- ★ Explain to students that one way of looking at Indiana is to divide the state into **regions**.

Regions are areas that have similar physical and cultural characteristics. Indiana can be divided into three major regions: North, Central and South. Because of the action of glaciers in the geological past, these three areas have different physical characteristics.

- ★ Use a physical map of Indiana to discuss similarities and differences in the three major regions. (See **Resources** for Web-based maps.)

- ★ Discuss with students whether they think there is any difference in the weather patterns in the three regions. Would the weather and physical characteristics make a difference in the types of crops grown in the three regions?

- ★ Have students locate and label their own community on the regional map and color the regions with crayons or map pencils.

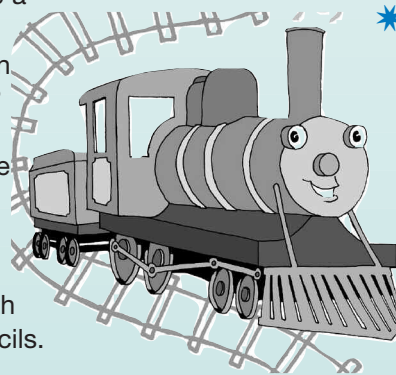
- ★ Divide students into groups to research the crops and other products produced in their community and region. Students should list the products on their map.

Day Two

- ★ Give each student a copy of **Visual 9: Railroad Map of Indiana**. Explain to students that it shows only the railroad system.

- ★ Ask students to look at the map carefully. Have them try to locate their own community and major cities. Do the railroads give them any clues?

- ★ Ask students to determine if a railroad runs through or near their community. Could people in their community ship a product by railroad to the nearest major city? Encourage them to think about where that product might go next.



- ★ Explain to students that when goods and services from their community are sold somewhere else, trade takes place. Trade is the exchange of goods and services.
- ★ Ask students to explain why trade might be improved by being close to a railroad.
- ★ Help students to understand that transportation routes, such as railroads and highways, help to link communities and regions together and make it easier for people to travel and trade with each other. Do they think trains and railroads were more important to their community in the past than they are in the present? Why?



Gil Hutton, 1949. Courtesy of The Dave Ferguson Photo Art Studio, Lafayette, Ind.

Assessment:

Have students use map pencils to identify Indiana's three major regions and to locate and label their community, major cities and principal rivers on the **Railroad Map**. Have them trace the route products might take from their community to the nearest major city in Indiana.

Performance Criteria: On the **Railroad Map** each student should accurately:

- Draw Indiana's three major regions and principal rivers.
- Locate and label their community and major cities.
- Trace the route a product might take from their community to the nearest major city.

Train of Thought Journal:

Give each student **Visual 10: Railroad Map of the United States** to include in their journals. Ask them to answer these questions: If you could take a trip by train where would you go? Why do you want to go there? Ask them to label their starting point and destination and trace the route they would follow.

Family Connection: Have students interview an older community resident or a family member about their train experiences.

The Hoosier Line: In this 1949 photo, F-3 Engine No. 81 pulls passenger cars on the Monon route south of Putnamville, Ind. "The Hoosier Line," operated until 1971 when it was merged with large railroad corporations. Most Monon equipment has been retired or scrapped, and branches of the line have been abandoned. Some have been turned into bike and walking paths, such as the Monon Trail in Indianapolis.

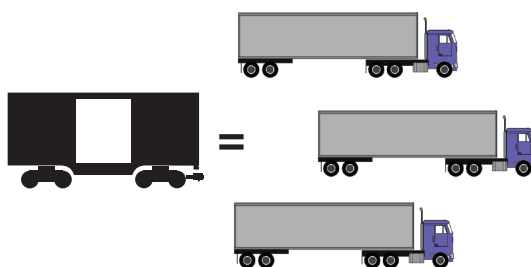


Tips for the Teacher:

In **Experience One**, students examine places and jobs in their community and consider the importance trains and railroads have in the local economy. This may be a good time for a field trip to a train station or another site to look for evidence of trains and their impact on the local community. It is also a good time for students to learn about safety rules around railroad tracks and crossings and to do more research into community history.

It would be hard to overestimate the importance of trains and railroads to Indiana communities in the past. Some communities actually had their origin with the arrival of a railroad line. Some existing communities experienced considerable growth due to their location on or near a train route. Others declined when transportation routes failed to develop nearby. While trains are still important today, they are not as central to everyday community life as they were in the past. Good highway systems and airplanes have made train travel less popular, and some products can be transported more efficiently by truck.

Trains are still important in transporting heavy loads over long distances. Railroads can move bulk products, such as grain, coal and steel, using much less fuel than other forms of transportation. An interdependent system of highways, railways and water routes helps Indiana move and sell its products around the world.



Track Fact: A boxcar can carry as much as three big trailer trucks. One 30-car train carries as much freight as 90 trucks on the highway.

The Santa Train

A very special train visits Appalachian communities in Kentucky, Virginia and Tennessee just in time for Christmas. The Saturday before Thanksgiving, the **Santa Special** begins a 110-mile journey from Pikeville, Ky., to Kingsport, Tenn. It stops at 29 communities along the way, leaving goodwill and gifts of toys, clothes and candy for children who come to see the train with their families. Santa's helpers on the train, including business people, country singers, teachers and other volunteers, make sure that

every child gets a present. This tradition, sponsored by local businesses, began in 1943 and continues today.

Students may want to participate in a service project to provide donations for the Santa Special or help to organize another "Goodwill Train" to

benefit their own community. For example, a "train" of boxes could be decorated and set up in a central location so that students can fill them with canned goods for a local food bank. For information on how to help the Santa Special, contact the Kingsport Area Chamber of Commerce, Santa Special, 151 East Main Street, Kingsport, TN 37660.

Bonus:

Try these experiences to extend students' learning:

- 1) Help students become familiar with train crossing signs and signals. Use painter's tape to make tracks and railroad crossings on the classroom floor and practice railroad safety rules.
- 2) Play "Mr. Train, Mr. Train! Where have you been?" Make flash cards with the names of Indiana towns and cities. Individual students or teams ask the question, draw a card, locate the city on an Indiana map and identify its region.
- 3) Research local history to find out if railroads were significant in the development of the community. Also, students may want to examine the ways that products come into and leave their community today. County historical societies, local historians, business people and community officials would be helpful resource persons.



Resources:

For Children

Coiley, John. *Train*. New York: Alfred A. Knopf, 1992. This Eyewitness Book provides an illustrated history of trains from the earliest steam engine to the trains of the future. The book is a good reference for teachers and older students. Younger students will enjoy the colorful illustrations.

Gibbons, Gail. *Trains*. New York: Holiday House, 1987. This colorful book describes the functions of different kinds of trains. The parts of a train and train signs and symbols are featured. The text is suitable for beginning readers or as a read-aloud book.

Scarry, Richard. *Richard Scarry's Trains*. Racine, Wis.: Western Publishing, 1992. This 23-page book full of Scarry's illustrations is delightful for younger students.

For Teachers

America by Rail, Volume I: The Heartland. Indianapolis: Railway Productions, 2002. This video traces a scenic train trip coast-to-coast, from Washington, D.C., to Chicago and from Chicago west on the California Zephyr. The two-hour tape can be best used in the classroom by selecting segments that match student interests.

www.A-Trains.com

I Love Big Trains. New Buffalo, Mich.: TM Books & Video, 2002. This 30-minute video features historic trains as well as the latest diesels and high-speed trains. Students can learn how steam engines work and how modern trains are controlled by signals. A visit to the Indiana Harbor Belt Railroad is a highlight. **www.tmbooks-video.com**

Indiana Social Studies Curriculum Framework, Grade One and Grade Two. Indianapolis: Indiana Department of Education, 2002. The economics sections in these teaching resources provide preliminary activities for teaching the concepts of goods and services as well as other academic standards. Frameworks are available on the IDOE Web site:

www.indianastandardsresources.org

Microsoft® Train Simulator. This interactive software for Windows allows children and adults to immerse themselves in train travel on six different routes around the world. Both historic and contemporary operations are included. Authentic train route sounds and landscapes have been carefully recreated. Players can choose from a variety of travel challenges in the role of passenger or engineer. The simulation can be configured to provide different levels of interaction, depending on the age and experience of the player. To preview the software, visit: **www.microsoft.com/games/trainsim**

Web-based maps: **www.globalindex.com/comindex** or **www.mapquest.com** (communities); **www.esdim.noaa.gov/story/ngdc_state.html** (physical).

Historic Nickel Plate Road Caboose #770 is the last car on an Indiana Transportation Museum freight train passing through Noblesville, Ind.



Photograph courtesy of the Indiana Transportation Museum



The Reuben Wells

The best way to experience this historic engine is to plan a visit to the museum. The Reuben Wells sound and light show in the All Aboard! gallery plays every 30 minutes. Students can stand near the massive engine and hear the sounds a departing steam locomotive would make. They can hop on the tool car for a simulated ride or play computer games that allow them to see what it would be like to operate a steam train. They can also view an amazing collection of model trains, including some that move through miniature landscapes of the past.



The Earl Storm Collection, Madison, Indiana.

The Reuben Wells: The great size of the Reuben Wells can be seen as men pose with the locomotive in Madison, Ind. This photograph was probably taken after 1886 when the engine number was changed from 35 to 635 and other modifications were made. At The Children's Museum, the Reuben Wells has been restored to its original condition.



Experience Two

The Little Engine That Made a Difference:

The Story of The Reuben Wells

Few stories are more dramatic than the true story of The Reuben Wells. This not-so-little engine made a big difference for two Indiana towns, Madison and Indianapolis. It was the most powerful locomotive of its time. It was named after the man who designed and built it, Reuben Wells. Today, this historic locomotive is on display at The Children's Museum of Indianapolis.

Objectives —

Experience Two will enable students to:

- ★ Learn the words **big** and **bigger** and sort objects into these two categories. Apply these words to trains and other objects from everyday life.
- ★ Participate in reciting a poem and identifying its characteristics.
- ★ Write simple rhymes and poems.
- ★ Improve their reading and writing skills as they learn the story of The Reuben Wells and its importance to Indiana.

You will need ...

Materials:

- **Kindergarten** — Book, *The Little Engine That Could*; poem, “How Big Is The Reuben Wells?”; **Visual 11**: picture of the locomotive, **Reuben Wells**; two boxes of different sizes.
- **Grades One and Two** — **Visual 11: The Reuben Wells**; **Visual 12**: Portrait of **Reuben Wells**; **Visual 13**: Poem, **The Ballad of The Reuben Wells**; construction paper.
- **Grades Three and Four** — **Visual 11: The Reuben Wells**; **Visual 12**: Portrait of **Reuben Wells**; **Visual 13**: Poem, **The Ballad of The Reuben Wells**; **Visual 14**: **Thank you, Mr. Wells!**

Time: Two 30-minute periods

Words: More powerful than a locomotive ...

Kindergarten — Engine, locomotive, big, bigger

Grades One and Two — Cargo, riverboat, mechanic

Grades Three and Four — Legend, ballad, historical fiction

Focus Questions:

Use these questions to help students focus on the key ideas in **Experience One**.

Kindergarten:

? How big is a locomotive like The Reuben Wells?

Grades One and Two:

? Why is The Reuben Wells famous?

? Why was it important?

Grades Three and Four:

? How did Reuben Wells, the man who designed and built the locomotive, make a difference for Indiana?

? How can we learn more about The Reuben Wells and its designer?



Kindergarten:

How big is The Reuben Wells?



Indiana's Academic Standards:

Language Arts – Standard 1: Reading (K.1.1, K.1.6, K.1.11).

Mathematics – Standard 3: Algebra and Functions (K.3.1).

Procedures:

Day One

- ★ Read *The Little Engine That Could* to students again and remind them of events in the story. Ask students to identify the front cover, back cover and title page of the book.
- ★ Remind students that the **engine** or **locomotive** is the car that pulls or pushes the train. Explain to students that the engine in the story was smaller than other engines so it had to work especially hard.
- ★ Introduce the picture of The Reuben Wells and explain that this is a real locomotive from long ago. It was the biggest, strongest locomotive of its time.
- ★ Ask students if they can guess how big it is compared to other things such as a family car, a pickup truck or a house.
- ★ Read “How Big Is The Reuben Wells?” several times aloud and encourage students to respond to the “Is it bigger than ...?” questions aloud together.

Day Two:

- ★ Read the poem to students again. Have students listen for words that sound alike, such as “car” and “star.”
- ★ Ask students to identify the sounds they hear at the beginning of each word.
- ★ Write the words on the chalkboard and have students identify letters that are the same and letters that are different.
- ★ Remind students of the words **big** and **bigger** in the poem. Write the two words on the chalkboard. Encourage students to think of things in their own environment that are big and bigger. For example, a house is big, but the school building is bigger.
- ★ Show them items in the classroom and ask them to tell which item is bigger. For example: Which is bigger, a storybook or the *Big Book of Trains*?

Assessment:

Place a large box and a medium-sized box in the classroom. Give each student two classroom items, such as toys or books, of different sizes. Have students place each item in the appropriate box.

Performance Criteria: Given two items of different sizes, each student will be able to tell which item is bigger and place each item in the appropriate box.

Train of Thought Journal:

Include the picture of The Reuben Wells in the classroom *Big Book of Trains*. Write the word “big” on the facing page. Ask students to contribute to the book by drawing items that are big like The Reuben Wells.

Family Connection: Let families know that the class is studying things that are big, like a locomotive. Students may enjoy talking with family members about things that are big or they may want to compare items at home that are big and bigger. Encourage a family trip to The Children’s Museum or another site where children can see a big locomotive.

“How Big is the Reuben Wells?”

The Reuben Wells is a **BIG** locomotive. Who can tell me just how big it is?

Is it bigger than a car?

Response: **YES!**

Is it bigger than a star?

Response: **NO!**

Is it bigger than a house?

Response: **NO!**

Is it bigger than a mouse?

Response: **YES!**

Bigger than a mouse?

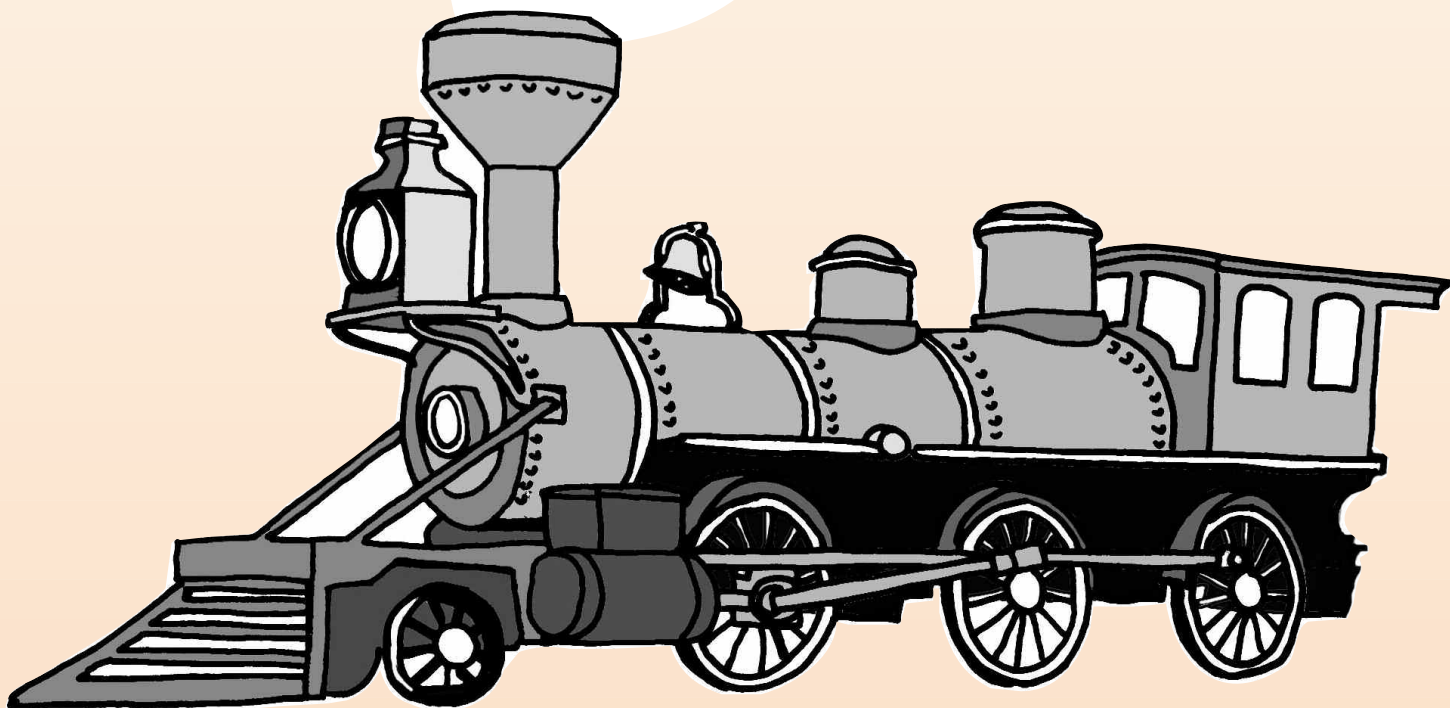
Response: **Oh yes, indeed!**

It's bigger than a school bus

I do believe!

It's the biggest locomotive

I ever did see!





Grades One and Two: Well Done, Reuben Wells!

Indiana's Academic Standards:

Grade One: Language Arts – Standard 1: Reading (1.1.7); **Standard 2:** Reading Comprehension (1.2.3, 1.2.7); **Standard 5:** Writing Applications (1.5.3). **Social Studies – Standard 1:** History (1.1.2).

Grade Two: Language Arts – Standard 1: Reading (2.1.1); **Standard 2:** Reading Comprehension (2.2.5); **Standard 3:** Literary Response (2.3.4); **Standard 5:** Writing Applications (2.5.4).

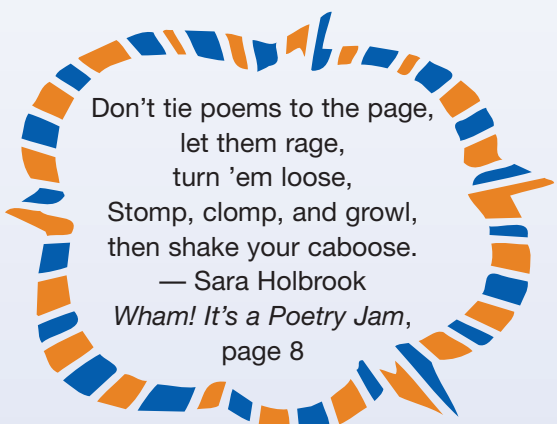
Procedures:

Day One:

- ★ Read the poem, **The Ballad of The Reuben Wells**, **Visual 13**, to students and ask them if they can tell who or what the poem is about.
- ★ Explain to students that this poem tells a story. It is based on the true story of a famous locomotive and the man who built it. Both were named Reuben Wells.
- ★ Show students a portrait of Reuben Wells and a picture of the locomotive. Long ago, Reuben Wells and his locomotive were very important to Madison, Indianapolis and other Indiana towns. Does the poem tell why?
- ★ Place the poem on the overhead projector and read it to students again. Ask

students *who, what, when, where and why* questions to identify events in the story.

- ★ Help students remember what they have previously learned about trains and how they help people in communities. Can they think of ways that The Reuben Wells helped people in Madison long ago? How could it have helped people in other towns? Do they think people still depend upon trains for the same things today? Ask students to think about the man, Reuben Wells. How did he make a difference for people in the community?
- ★ Use details from the poem to help students compare similarities and differences in daily life today and in the past. For example: Ask students to compare how people traveled long ago and how they travel today.



Don't tie poems to the page,
let them rage,
turn 'em loose,
Stomp, clomp, and growl,
then shake your caboose.
— Sara Holbrook
Wham! It's a Poetry Jam,
page 8

Day Two:

- ★ Place the poem on the overhead projector and ask students to listen to the rhythm and rhyming sounds.
- ★ Using the overhead, help students identify rhyming words and identify the letters in the words that are the same and letters that are different. (Note: In some rhyming words the vowels and final consonants are the same, as in "hill/thrill." In others, the vowels do not match exactly, but the final consonants have the same letters or have a very similar sound, as in "cried/pride" and "line/time." This is called "approximate rhyme.")
- ★ Help students to identify sets of rhyming words, such as "down/town," "away/day," "bells/Wells." Have students see how many other pairs of simple rhyming words they can write down. (Simple three-letter words might be "cat/bat," "car/far.")

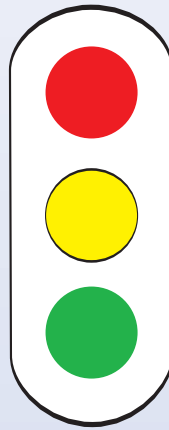
Day Three:

- ★ Introduce students to the process of writing rhymes and poems by helping them construct a group poem about The Reuben Wells.
- ★ Using the chalkboard or a wipe-off board, write the first line. The line might be: "A story I will tell." Ask students to think of words that rhyme with "tell." With prompting they may think of words, such as "well," "bell," "swell" or "Reuben Wells."
- ★ Use student words to construct a rhyming line, such as "about The Reuben Wells."
- ★ Continue to prompt students by asking questions about what The Reuben Wells did and helping them to identify possible rhyming words that could be used. It is important for students to understand that words don't have to rhyme perfectly. In fact, some kinds of poems don't rhyme at all.
- ★ With the teacher's help, the class should be able to generate a poem of a few lines. It might look like this:

*A story I will tell
about The Reuben Wells.
It pushed cars up the hill.
Then it rang its bell
and brought the cars down
to Madison town.*

Assessment:

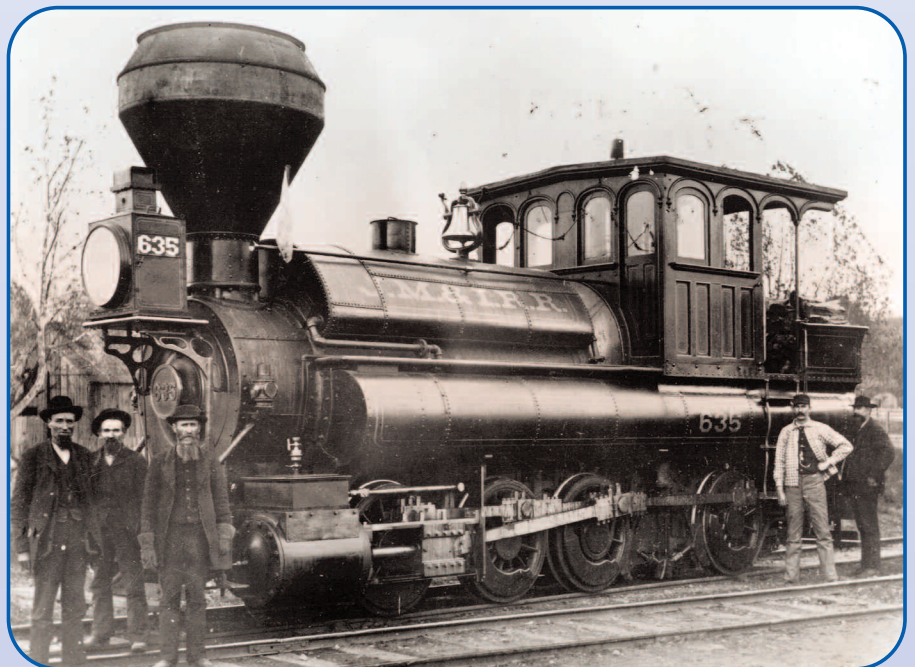
Make enough copies of the group poem or another simple poem for the class. Cut the poem into strips and give one set to each child. Have students reconstruct the poem by gluing the phrases to construction paper. Students may want to illustrate their poem with crayons or invent their own rhymes or poems.



Train of Thought Journal:

Have students choose one of these options for their journals:

1. Choose one pair of rhyming words that you have discussed in class. Write and illustrate your own two-line poem about The Reuben Wells, such as "Reuben Wells/Ring your bell!"
2. Think about this question: If you lived in Madison, Ind., long ago, how would your life be different from the way it is today? Draw a picture to show how your life might have been in Madison long ago.



The Earl Storm Collection, Madison, Ind.



Grades Three and Four : Thank You, Reuben Wells!

Indiana's Academic Standards:

Grade Three: Language Arts – Standard 2: Reading Comprehension (3.2.3, 3.2.5, 3.2.6); **Standard 3:** Literary Response and Analysis (3.3.1); **Standard 5:** Writing Applications (3.5.3). **Social Studies – Standard 1:** History (3.1.4, 3.1.6).

Grade Four: Language Arts – Standard 2: Reading Comprehension (4.2.2, 4.2.5); **Standard 3:** Literary Response and Analysis (4.3.1); **Standard 5:** Writing Applications (4.5.6). **Social Studies – Standard 1:** History (4.1.9, 4.1.14).

Procedures:

Day One

- ★ Place the poem **The Ballad of The Reuben Wells, Visual 13**, on the overhead and read it with students. Examine any unfamiliar words, such as **cargo, riverboat, and mechanic**.
- ★ Discuss the details that give clues about how long ago the events in the poem took place.
- ★ Explain to students that this poem tells a story. Remind them of the songs and stories they learned about John Henry and Casey Jones. These stories are called **legends**. They contain imaginary elements and it is difficult to determine if they are based on actual events in the past.
- ★ Ask students if they think that the story told in this poem is a legend or if it is based on historical events. How could they find out?
- ★ Discuss the different ways students might research this question, including the use of print and electronic sources.
- ★ Allow students to do some preliminary research using The Children's Museum Web site. They will be able to determine that there is a Madison, Ind., and that Reuben Wells, both the man and the locomotive, really existed.

Day Two

- ★ Review the ways that students could research the historical background of the poem. Discuss evidence indicating that the poem is based on historical events. Ask students if this means that every detail in the poem is true. Are there details in the poem that could be imaginary?
- ★ Show students two pieces of evidence, the portrait of Reuben Wells and the photo of the locomotive. Let them know that the locomotive can be seen at The Children's Museum.
- ★ Read **Thank You, Reuben Wells!, Visual 14**, to students. Explain that this narrative is another way of telling the story. Can they find similarities in the poem and this version of the story? Are there any important differences?
- ★ Divide the class into pairs and give each student a copy of the story and reading guide. Have each student read the story silently and then complete the guiding questions as a team.

Guiding questions:

1. Where is Madison located?
2. When did this story take place?
3. What problem did the town of Madison need to solve?
4. Who helped to solve the problem?
5. How did he solve the problem?
4. Which do you like best, the poem or this story? Why?

★ Discuss the questions with students and ask what details they think may be imaginary. How is this story different from something that you might read in a textbook or newspaper?

★ Explain to students that authors sometime create stories about events and people in the past and add imaginative details, like dialogue. This story can be described as **historical fiction**. It is based on events that took place in the past, but many of the details come from the writer's imagination.

Train of Thought Journal:

For their journal entry, ask students to write about an event that happened in the classroom or school. Before they begin, discuss these questions: How will you tell about this event? Would you act like a news reporter, a storyteller or a poet? Will you write a newspaper article, a poem or a story? What is the difference?

Assessment:

Have students choose one of the following options:

1. Use information from the poem and story to write a letter to Reuben Wells from a citizen of Madison, Indianapolis or another community in central Indiana. The letter should thank Wells for building the new engine and explain how this has helped the community.
2. Write a persuasive letter from Reuben Wells to the president of the Jeffersonville, Madison and Indianapolis Railroads. The letter should state why a new engine is needed and describe the benefits it would provide to the railroad and communities in Indiana.

Performance Criteria: Each student should be able to write a letter that:

- Considers the audience, purpose and context for writing, and
- Includes the date, proper salutation, body, closing and signature.

Portrait of Reuben Wells: Wells was a highly respected railroad man who designed and built the most advanced locomotives of the time.



The Children's Museum of Indianapolis



Tips for the Teacher:

In **Experience Two**, younger students consider the power and size of a locomotive. They also have fun with poetry and develop their word recognition and writing skills while they learn about a historic engine that really made a difference for Indiana. Older students improve their reading comprehension, analysis and writing skills while they learn about the impact of The Reuben Wells. Many students today have never seen a real train. For students to actually understand the size and power of a locomotive, firsthand experience is crucial. To help students connect trains to their own lives, plan a field trip to a train station or museum where they can experience “the real McCoy.”

Bonus — Extending Experiences:

1. Have students draw pictures of Reuben Wells, the man who designed the famous engine, and add him to a classroom display of individuals who made an impact on the state or regional communities. See The Children’s Museum Web site for a portrait and biography. (**Social Studies 2.1.2**)
2. Research on the museum Web site the story of how The Reuben Wells came to The Children’s Museum of Indianapolis. Write a thank-you letter to the museum and explain why it is important for the engine to be on display. (**Language Arts 3.5.3**)
3. Help students turn “The Ballad of The Reuben Wells” into a song by singing it to the tune of the old folk song “Sweet Betsy from Pike.”
4. **Trains with Famous Names:** Most engines have numbers. Famous engines like The Reuben Wells and special trains have names. The names sometimes describe an important characteristic of a train, such as speed or elegance. Often trains are given names that relate to the routes they travel or the major cities that are their destinations. Ask students to consider the meaning of names from the past, such as “The Wabash Cannonball,” “The City of New Orleans” and “The Twentieth Century.” They may want to research Indiana trains and the stories behind the names or write a story of their own. (**Social Studies 4.1.9, 4.1.12**)

The Ballad of Reuben Wells

Words written for The Children's Museum of Indianapolis

Traditional Melody
(Sweet Betsy from Pike)

There was trou - ble, big trou - ble, in Mad - i - son town. No trains could go

7 up, no trains could come down. The hill by the riv - er to

12 Mad - i - son town. The hill by the riv - er to Mad - i - son town.



Resources:

For Children:

Gibbons, Faye. *Full Steam Ahead*. Honesdale, Pa.: Boyds Mill Press, 2002. This story catches the excitement of the “good old days” as the first train arrives in a small rural community. It is suitable for young readers or can be a read-aloud book.

Mott, Evelyn Clark. *Steam Train Ride*. New York: Walker, 1991. Illustrated with colorful photographs, this book describes a little boy’s ride on a historic train pulled by a steam locomotive. It provides good information and can help children to picture what it would be like to ride an old-fashioned train like The Reuben Wells.

Macdonald, Fiona. *A 19th Century Railway Station*. New York: Peter Bedrick Books, 1990. This book provides a beautifully illustrated view of what train travel was like in the mid- to late 19th century. Suitable as a reference book for older students and teachers or as a picture book for younger students.

Wormell, Christopher. *Puff-Puff, Chugga-Chugga*. New York: McElderry Books, 2000. A spunky little train pulls a heavy load in this story for younger students.

For Teachers:

Lewis, J. Patrick. *Doodle Dandies: Poems That Take Shape*. New York: Atheneum Books for Young Readers, 1998. This is a collection of poems in fanciful shapes, such as a turtle, a butterfly and a softball. Your students may want

to use their creativity and merge pictures with poems. Can anyone make a poem in the shape of a train?

Holbrook, Sara. *Wham! It’s a Poetry Jam*. Honesdale, Pa.: Boyds Mills Press, 2002. This guide provides students and teachers with strategies for group and individual poetry performance. Holbrook offers her own verses as evidence that “poetry should not lie quietly on the page.”

King, Penny and Ruth Thomson. *Start Writing About Things I Do*. N. Mankato, Minn.: Thameside Press, 2001. Various types of nonfiction writing, including letters, descriptions, a newspaper article and persuasive writing are featured in this student-friendly guide.

Web Sites:

Amtrak — The Amtrak homepage offers information about passenger travel within the United States, including a detailed map that features its passenger routes from coast to coast. www.amtrak.com/destinations/routemap.html

Indiana in the World — Under the heading “Tool Box,” this site provides data for the state, including census and geographic information. www.indianaintheworld.indiana.edu

Indiana Rail Road Company — The homepage of one of the state’s primary freight carriers, this site offers information about the railroad line, including company practices, safety policies, a route map and regional activities. www.inrd.com

Indiana Rail Links — This section of the Indiana State Government site, Access Indiana, features Indiana railway transportation and links to each of the primary lines running through the state. www.in.gov/doc/compare/WorldRailWays.html

Indiana State Facts — This site lists facts about each state. The section on Indiana includes a color topographic map of the state. Click on Indiana. www.50states.com

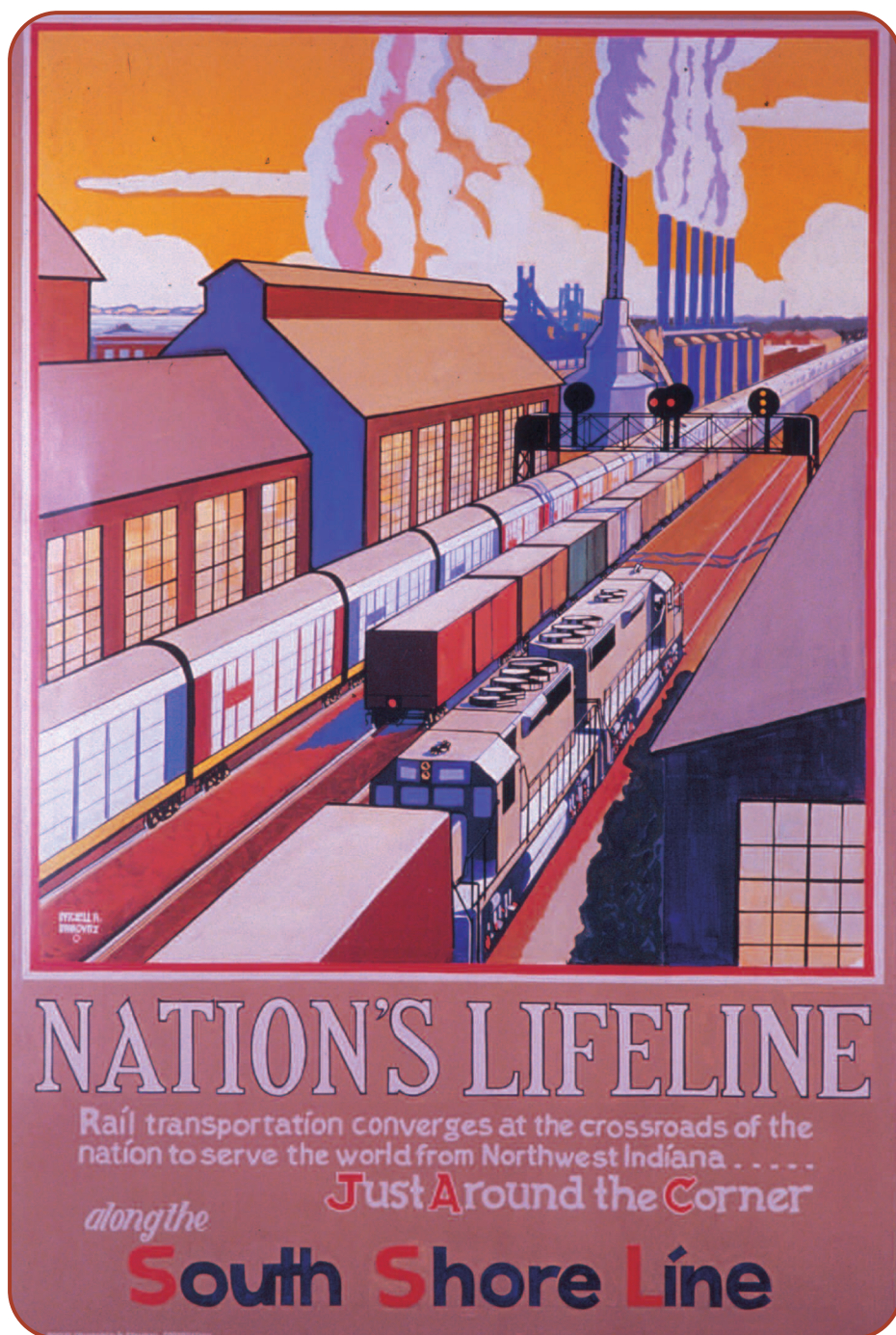
Madison, Ind. — The city homepage features sections on Madison’s history and its connection to trains, including the famous incline and The Reuben Wells. The site also provides an excellent map of the community. www.oldmadison.com

Museum Links at The Children’s Museum

The Children’s Museum Web site tells the dramatic story of how The Reuben Wells found a home at the museum in 1968. The site also includes information on Reuben Wells, the engine’s designer, and an online video showing how the big locomotive conquered Madison Hill. www.childrensmuseum.org



Lesson THREE : Engines of Change



Mitchell A. Markovitz, 1997. Oil on canvas.



Experience One

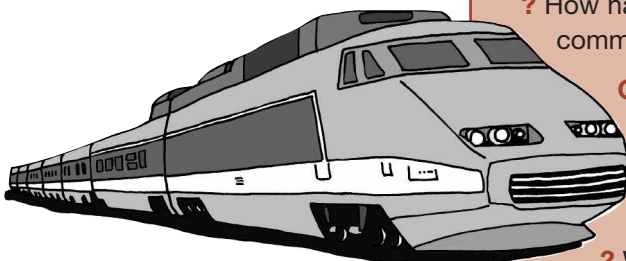
Where's the Caboose? — How have trains changed?

In this lesson students learn about ways that inventions and innovations in transportation and communication have helped trains change with the times. They explore the connections between trains and the visual arts and consider the ways that trains may shape and be shaped by the future.

Objectives:

Experience One will enable students to:

- ★ Identify trains of the past and the present.
- ★ Give examples of how inventions have changed transportation and communication.
- ★ Give examples of how new technology may change trains and the way we travel in the future.



You will need ...

Materials:

- **Kindergarten** — Poster paper or butcher paper; **Visual 15: Trains Today** and **Visual 16: Trains Long Ago**; glue sticks, crayons
- **Grades One and Two** — Poster paper or butcher paper; **Visuals 15 and 16: Trains Today and Trains Long Ago**
- **Grades Three and Four** — **Visuals 15 and 16: Trains Today, Trains Long Ago**, **Visual 17: Trains and Technology**, and **Visual 18: The Shape of Trains to Come**; construction paper; pencils, markers or crayons.

Time: Two or three 30-minute periods

Words: More powerful than a locomotive ...

Kindergarten: Long ago, today

Grades One and Two: Past, present, cowcatcher, smokestack, caboose, steam, firewood, coal, oil, diesel, electric, air conditioning

Grades Three and Four: Time line, technology, inventions

Focus Questions:

Kindergarten:

- ? What kinds of trains did people use long ago?
- ? What were they like?
- ? What are trains like today?

Grades One and Two:

- ? How are trains in the present similar and different from trains in the past?
- ? How have the changes in trains affected daily life for people in the community?

Grades Three and Four:

- ? What kinds of inventions changed the technology of trains?
- ? How have these innovations brought about changes in our community and state?
- ? What kinds of changes might take place in the future?



Kindergarten: Trains Today and Long Ago



Indiana's Academic Standards:

Social Studies — Standard 1: History (K.1.1); **Language Arts — Standard 2:** Reading Comprehension (K.2.2, K.2.3).

Procedures:

Day One

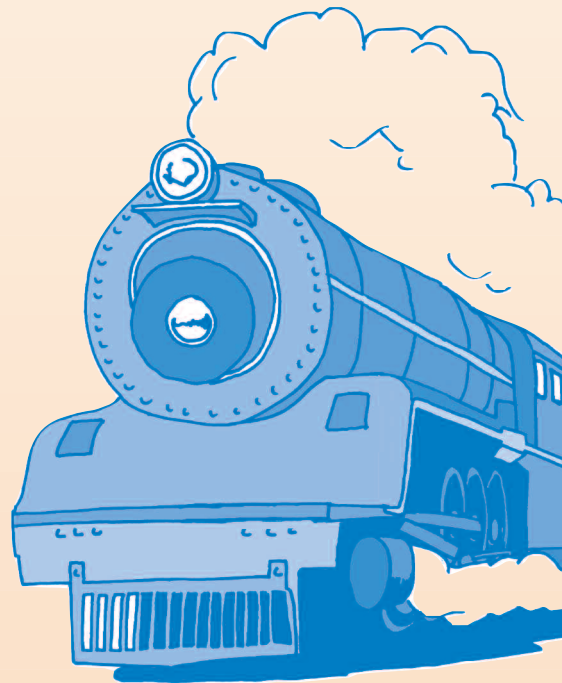
- ★ Remind students of The Reuben Wells and show them the picture of the locomotive once again. Ask them if they think The Reuben Wells was an engine that was used long ago or today. How can they tell?
- ★ Show students pictures of **Trains Today** and **Trains Long Ago** without showing or telling them the captions.
- ★ Ask students to look at the pictures carefully. Point to each train and ask students to guess which trains were used long ago and which trains are used today.
- ★ Discuss the clues that students can use to tell if a train is from long ago or today.
- ★ Read the captions to the pictures and explain that one group of trains is used today and the other group was used long ago.

- ★ Ask students if they can see ways that trains in each group are similar and different.
- ★ Explain to students that people traveled by train long ago and that they still travel by train today. Trains look different today. Can students think of other ways that trains have changed?

Day Two:

- ★ Show students a familiar book, such as *Train Song*, *Steam Train Ride* or another picture book. (See **Resources**, Lesson One and Lesson Two.) Ask students if they can tell from the pictures whether the story is about trains today or long ago. What clues can they find in the pictures?
- ★ Repeat the same process with an unfamiliar book and ask students to make predictions about story content. Read the story with students and review the predictions.

- ★ After reading the story, ask students if they can tell about any real life experiences with trains. Some students may have seen a real train or may want to tell about their toy or model trains.
- ★ Some students may want to tell about seeing a train in a museum or at a historical site.





Assessment:

In the classroom learning center on trains, create a large wall chart using pieces of poster paper or butcher paper. Place the caption “Trains Long Ago” on the left side and “Trains Today” on the right side. Make copies of the two visuals and cut the trains apart so that each student has one train. Introduce students to the chart and read the captions with them. Coach students by asking them to bring their train and stand on the appropriate side of the chart. When students understand how to use the chart, have them color their trains and use glue sticks to place their trains on the correct side. Have students explain how they can tell where their trains belong.

Performance

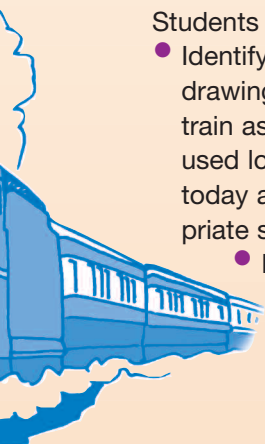
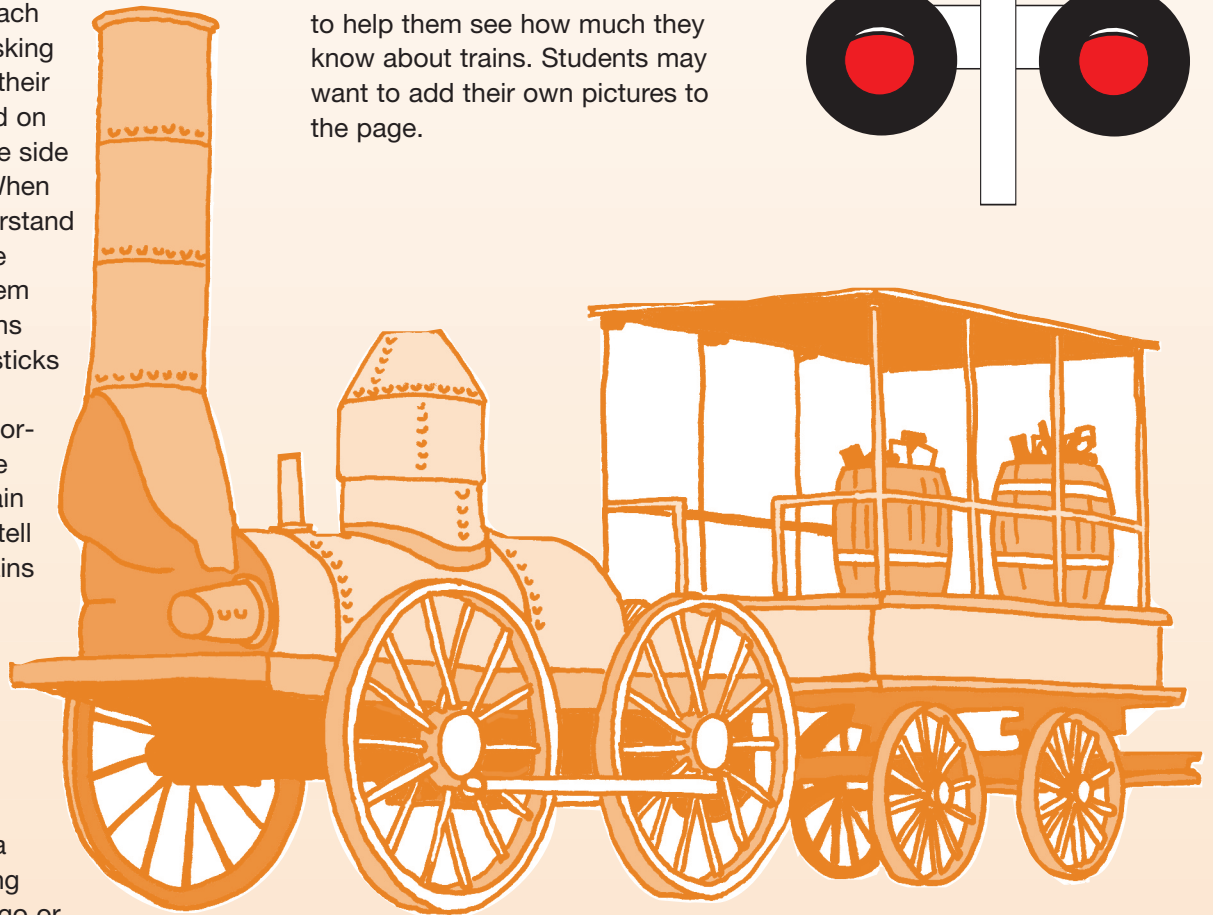
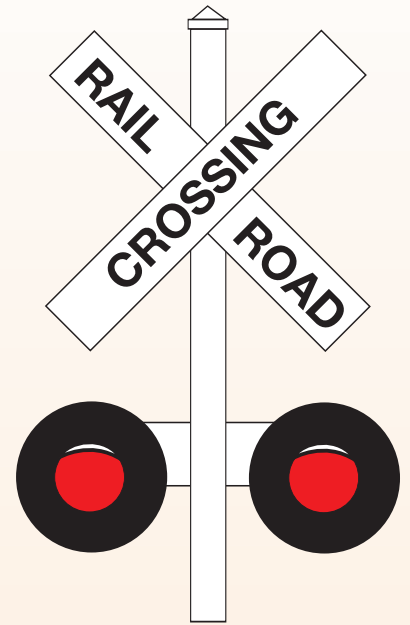
Criteria:

Students will:

- Identify a drawing of a train as being used long ago or today and place it on the appropriate side of the chart.
- Explain how they can tell where the train belongs.

Train of Thought Journal:

Choose one of the trains from each visual and paste each to a page of the *Big Book of Trains*. Write the captions “Long Ago” and “Today” at the top of each page. Have each student write or dictate a sentence for the teacher to write about a train long ago or a train today. When the sentences are complete, read them back with the students to help them see how much they know about trains. Students may want to add their own pictures to the page.





Grades One and Two: Trains, How You've Changed!

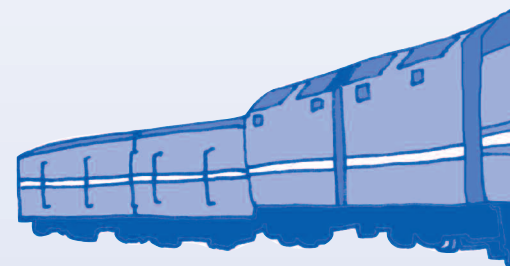
Indiana's Academic Standards:

Grade One: Social Studies – Standard 1: History (1.1.1, 1.1.6).

Language Arts – Standard 4: Writing Process (1.4.3); **Standard 5:** Writing Applications (1.5.2, 1.5.2); **Standard 6:** Writing Conventions (1.6.2, 1.6.6, 1.6.7).

Grade Two: Social Studies – Standard 1: History (2.1.1, 2.1.2).

Language Arts – Standard 4: Writing Process (2.4.6, 2.4.8); **Standard 5:** Writing Applications (2.5.2); **Standard 6:** Writing Conventions (2.6.2).



Procedures:

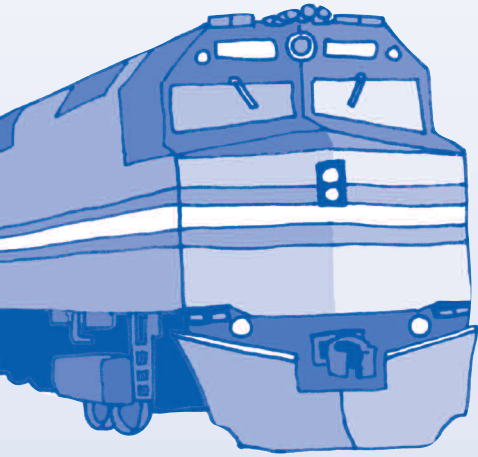
Before beginning the experience, make two large charts with poster paper or butcher paper. Place the caption **Trains** at the top of each chart. On the left side of the charts, near the top, write the caption **Past**. On the right side, write the caption **Present**.

Day One

- ★ Remind students of the poem, "The Ballad of The Reuben Wells."
- ★ Ask students to tell whether they think that story took place in the past or the present. What are some of the details in the poem that give them clues?
- ★ Show students the pictures of **Trains Today** and **Trains Long Ago** without showing them the captions.
- ★ Ask students to identify which group of trains is from the past and which is from the present. How can they tell? Compare the parts of old trains, such as the **smokestack** and the **cowcatcher**, with trains in the present.
- ★ Point out to students that most freight trains today don't have a caboose. Can they guess why? What was the purpose of the caboose? Why isn't it needed today?
- ★ Ask students to suggest other ways that daily life has changed in the past and present, such as in other forms of transportation, technology, dress, etc.
- ★ Place the first chart on the wall and have students describe the characteristics of trains in the past and the present, such as the way trains look, the kind of fuel they use, their speed, comfort and safety.
- ★ As students make suggestions about train characteristics, write them down on the appropriate side of the chart. Ask students how they would confirm their ideas.
- ★ Give them time to research by looking at storybooks, picture books and Web sites. This is a good time to search for the answer to the question "Where's the caboose?"

Day Two:

- ★ Review the chart of train characteristics to confirm students' original ideas or make changes based on their research. Ask students to suggest ways that the changes in trains may have brought about changes in daily life for people in the community.



Assessment:

Each set of partners should write at least two sentences, one about trains and train travel in the past and one about trains in the present, using descriptive words and sensory details so that the reader can capture the feeling.

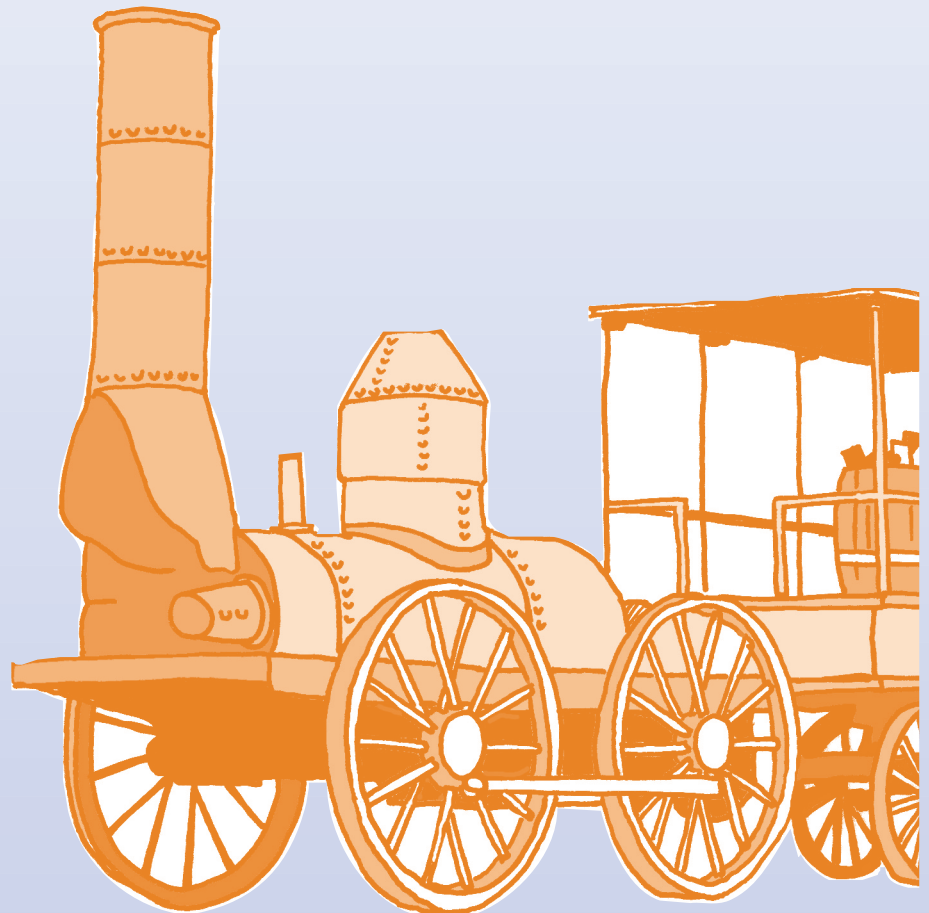
Performance Criteria: Each team should be able to:

- Write at least two sentences using descriptive words and sensory details.
- Write in complete sentences using appropriate capital letters and punctuation.
- Revise their writing for others to read.

Train of Thought Journal:

When sentences are complete, students should choose one to add to their journal along with a drawing of a train from the past or the present.

- ★ Put up the second chart. This time ask students to provide words that describe trains and train travel in the past and the present, using words that relate to feelings and the senses, such as exciting, frightening, hot, cool, dusty, smoky, loud, quiet.
- ★ Review guidelines for writing sentences. Give students a topic sentence, such as “Trains in the past were ...” or “Trains today are ...” and have them practice completing the sentence.
- ★ Assign partners to write sentences using the descriptive words the class has generated.





Grades Three and Four: The Shape of Trains to Come

Indiana's Academic Standards:

Grade Three: Social Studies – Standard 1: History (3.1.4). **Language Arts – Standard 4:** Writing Process (3.4.4, 3.4.6); **Standard 5:** Writing Applications (3.5.2).

Grade Four: Social Studies – Standard 1: History (4.1.2, 4.1.13). **Language Arts – Standard 4:** Writing Process (4.4.7, 4.4.10); **Standard 5:** Writing Applications (4.5.3).

Procedures:

Day One:

- ★ Remind students of the story **Thank you, Reuben Wells!** Ask them to think about the difficulties of travel during those days.
- ★ Ask students to discuss this question: How have changes in transportation brought about changes in our community and in the state? Students may think of changes brought about by modern trains, highways and air travel.
- ★ Explain to students that these changes have been brought by changes in **technology**. Technology refers to the tools, machines, processes and

knowledge that human beings use to create the things they want. Changes in technology are brought about by **inventions**, new ways of doing something. The invention of the train itself was a major advance in technology.

- ★ Introduce **Trains Long Ago** and **Trains Today** using the overhead projector. Explain that each of the pictures represents an important change in train technology.
- ★ Help students analyze the pictures, captions and dates. Ask students how each of the changes represented in the pictures affected travel and daily life.

Day Two:

- ★ Introduce **Visual 17: Trains and Technology** on the overhead projector. Discuss strategies for reading and interpreting time lines with students.
- ★ Put students into small groups to read and interpret the time line using guiding questions, such as:
 1. Who invented the first steam locomotive?
 2. Which was invented first, the telegraph or the telephone?
 3. How did these inventions improve trains?
 4. How did the invention of the lubricator cup change train travel?
 5. Which invention do you think changed daily life the most?
- ★ Discuss the impact of the various inventions.

Day Three:

- ★ Introduce **Visual 18: The Shape of Trains to Come**, on the overhead.

- ★ Compare the shape of trains in **Visual 18** to the shape of trains in **Visuals 15 and 16: Trains Long Ago** and **Trains Today**.
- ★ Discuss the evolution of streamlining and how this change in train design made trains more efficient.
- ★ Discuss with students what future changes in design and technology may make trains faster and more efficient.
- ★ Ask students to use multiple reference materials and online information to research this question: What shape will trains take in the future?

Assessment:

Review the guidelines for writing an informational paragraph. Have students summarize their research by drawing a design for a train of the future and writing a paragraph that describes their train. In their paragraph, students should address these questions: What will your train look like? What kind of fuel will power your train? How fast will it go? Why will people want to ship their products or ride on your train?

Performance Criteria: Students should be able to:

- Use multiple reference materials.
- Draw a design for their train of the future.
- Write a paragraph with descriptive details.
- Address specific questions about the train.
- Revise their writing for others to read.

Train of Thought Journal:

Trains of the Future — After students have reviewed and revised their own writing they can add their drawings and paragraph to their journals.

Photograph courtesy of Clarian Health



Clarian Health People Mover: This elevated, electric train is operated by computer. It serves medical facilities at Methodist, Indiana University and Riley hospitals in Indianapolis, and is free and open to the public. People movers are being used in many cities to transport people short distances quickly.



Tips for the Teacher:

In this experience students encounter concepts related to time, such as the ideas of past, present, continuity and change. Older students examine the ways inventions and changes in technology influence the way people live and travel. It is important for students to understand that changes are usually gradual. Many of the things that people used in the past are still used today, but the technology or the purpose has changed. For example, in the past sails and oars were the only ways to power a boat. Today, we have powerful engines that use fuel to move boats. Some people still use sailboats but they use them for recreation or because they enjoy sailing as a sport.

Where's the Caboose?

In the past it took a crew of several people to operate a freight train. The caboose was the last car and provided a place for workers to rest. It also had an observation window that allowed on-duty workers to see the entire length of the train. They could signal the engineer if there was a problem. Today, an electronic device placed on the last car of a train sends data to the engineer. Technology allows a train to be operated by two or three people who can sit in the cab of the locomotive. Under most circumstances, a caboose is no longer needed on a modern freight train.

Bonus — Extending Experiences:

1. Visit the Mysteries in History gallery at The Children's Museum to examine hands-on objects from the past and present.
2. Research African-American inventors such as Elijah McCoy and Granville T. Woods, whose devices helped transform train travel.
3. Develop a train time line showing the development of trains from the past to the present.

Caboose: A rear brakeman hangs out signal lamps on the caboose before a Chicago and Northwestern Railroad train pulls out. In the past, all freight trains had a caboose.



Jack Delano, 1943. Library of Congress, Prints and Photographs Division, FSA-OWI Collection.



Resources:

For Children:

Balkwill, Richard. *The Best Book of Trains*. New York: Kingfisher Publications, 1999. This informational book has photographs and illustrations on every page to help describe the development of trains from the 1800s to the present. Suitable for intermediate to advanced readers, this can also be a picture book for younger readers.

Fleischman, Paul. *Time Train*. New York: HarperCollins, 1991. In the ultimate field trip, a class travels by train back through history to the time of the dinosaurs. There is no attempt at scientific or historic accuracy, but students will enjoy the humor and fantasy of the story and illustrations.

Gunning, Thomas G. *Dream Trains*. New York: Dillon Press, 1992. This book emphasizes prototype trains and trains of the future and includes photographs and illustrations. For intermediate to advanced readers.

Richards, Jon. *Cutaway Trains: Look Inside Machines to See How They Work*. Brookfield, Conn.: Cooper Beech Books, 1998. This book provides photographs and cutaway illustrations to demonstrate how trains work. For intermediate to advanced readers.

Rylant, Cynthia. *Mr. Putter & Tabby Take the Train*. San Diego: Harcourt Brace, 1998. Mr. Putter, who hasn't ridden a train for years, finds that things have changed.

Towle, Wendy. *The Real McCoy: The Life of an African-American Inventor*. New York: Scholastic, 1993. This biography of Elijah McCoy is beautifully illustrated by painter Wil Clay. McCoy invented a device to lubricate the moving parts of trains as they were in operation, making train transportation much quicker and safer. For intermediate to advanced readers.

For Teachers:

Dolzall, Gary W. and Stephen F. Dolzall. *Monon: The Hoosier Line*. Bloomington: Indiana University Press, 2002. This history of one of Indiana's most important railroads combines information with large numbers of photographs.

Hollingsworth, Brian and Arthur Cook. *The Great Book of Trains*. London: Salamander Books, 1996. This book provides a complete history of trains by focusing on locomotive models from all time periods. Photographs and illustrations give realistic details along with the specifications for each locomotive. One hundred full-color illustrations and 500 photographs are included. An excellent resource for train enthusiasts.

Web Sites:

Indiana Transportation Museum
(317) 773-6000 — Located in Noblesville, Ind., the museum's site provides an extensive history of the line on which it operates today, along with images and descriptions of the types of trains the museum has collected. It also offers links to related sites with sources of historical railroad maps, railroad museums and additional resources. www.itm.org





Experience Two: Train Art

How do the visual arts convey ideas about trains and their changing connections to our communities? In this experience, students examine train poster art and advertisements from the South Shore Line. This railroad has stood the test of time and is making plans to continue serving northwest Indiana in the future.

Objectives:

Experience Two will enable students to:

- ★ Give examples of the roles that trains play in their communities.
- ★ Identify ways that ideas are expressed through art.
- ★ Express ideas about trains and their communities in their art.
- ★ Explain the purpose of an advertisement.

You will need ...

Materials:

- **Kindergarten** – 11" x 17" white construction paper; colored construction paper pre-cut in varying shapes, sizes and colors; glue; **Visual 19: Power To Move** poster by Mitchell Markovitz.
- **Grades 1 and 2** – Magazines; 11" x 17" colored construction paper; scissors; glue; **Visual 19: Power to Move** and **Visual 20: Nation's Lifeline** posters by Mitchell Markovitz.
- **Grades 3 and 4** – Magazines; markers; 11" x 17" colored construction paper; scissors; glue; **Visual 20: Nation's Lifeline**, **Visual 21: Chicago's Neighboring South Shore: Just Around the Corner Along the South Shore Line**, and **Visual 22: Just Around the Corner** posters by Mitchell Markovitz.

Time: Two 30-minute periods.

Words: More powerful than a locomotive ...

Kindergarten: Power, powerful, South Shore Line

Grades One and Two: Advertisement, collage, community, artist, region

Grades Three and Four: Poster, advertisement, region, community, collage

Focus Questions:

Use these questions to help students focus on key ideas in

Experience Two:

Kindergarten:

? What things do you see in this picture? What colors and shapes do you see? What does this picture tell you about trains?

Grades One and Two:

? What do you see taking place in these advertisements? How are trains represented in these posters? How do artists express ideas in their art?

Grades Three and Four:

? How are the advertisements similar or different? What do these posters tell us about the jobs trains do in other communities?

? How would you portray the trains in your community? What are the activities taking place around trains in your community?

Kindergarten:

The Power of Trains

Indiana's Academic Standards:

Visual Arts — Standard 1: Responding to Art-History (K.1.3); **Standard 3:** Responding to Art-Criticism (K.3.2); **Standard 5:** Responding to Art-Aesthetics (K.5.1); **Standard 7:** Creating Art-Production (K.7.2).

Procedures:

Before beginning this experience, cut construction paper into a variety of geometric shapes, including squares, rectangles, rhomboids, triangles and circles, so that there are enough for students to have a selection of shapes, sizes and colors.

- ★ Present students with the South Shore Line poster, **Power To Move**, and ask them to tell what they see in the picture.
- ★ Read the caption “Power to Move” to students and ask them what **power** means. Ask them: Does this train look **powerful**? What makes the train look powerful to us?
- ★ Explain that the **South Shore Line** is a railroad that carries people and things. The trains on this railroad need to be **powerful** to do this job, just like “The Little Engine That Could.”

Assessment:

Ask students to create their own train picture by gluing the pre-cut shapes to a piece of 11" x 17" white construction paper. Ask students to create a picture of a “**powerful**” train, based on their personal ideas and feelings, using the shapes provided. Have them reflect back to the South Shore Line poster. Remind students of the caption, “Power to Move.”

Performance Criteria: Students should be able to create a picture that expresses their ideas of the power of trains.

Train of Thought Journal:

Label one page of the *Big Book of Trains* with the word **Powerful**. Have students contribute to the book by drawing pictures of things that they think of as being powerful.

Mitchell A. Markovitz, 1997. Oil on canvas.



Power to Move: This poster was produced as part of a recent advertising campaign sponsored by the Chicago South Shore and South Bend Railroad. Posters in the series were designed specifically to look like the lithographic and silk-screen prints created for South Shore poster ads in the 1920s.



Grades One and Two: Picture a Train

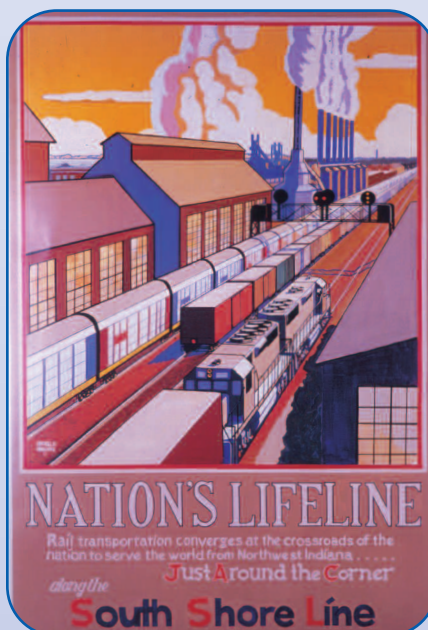
Indiana's Academic Standards:

Grade One: Visual Arts – Standard 3: Responding to Art-Criticism (1.3.2); **Standard 5:** Responding to Art-Aesthetics (1.5.1); **Standard 7:** Creating Art-Production (1.7.3); **Standard 9:** Creating Art-Production (1.9.3).

Grade Two: Visual Arts – Standard 3: Responding to Art-Criticism (2.3.2); **Standard 5:** Responding to Art-Aesthetics (2.5.1); **Standard 7:** Creating Art-Production (2.7.3); **Standard 9:** Creating Art-Production (2.9.2). **Social Studies – Standard 3:** Geography (2.3.4).

Procedures:

- ★ Present students with the two South Shore Line posters **Power to Move** and **Nation's Lifeline**, and explain that these are **advertisement posters**, including the artist's background, the community surrounding the railroad and how this relates to the message of the advertisements.
- ★ Ask students to give their ideas about the purpose of advertisements.
- ★ Ask students to explain what they see taking place and the meaning they feel each poster is trying to convey.
- ★ Help students understand that the images and captions in advertisement posters can provide information about a product or a service that can be provided. They can also provide information about a **community** and the **artist** that created the advertisement.
- ★ Briefly discuss the history of these advertisement posters and the **South Shore Line**, including the artist's background, the community surrounding the railroad and how this relates to the message of the advertisements.
- ★ Introduce **collage** as a mixed media process and demonstrate with examples.



Mitchell A. Markovitz, 1997. Oil on canvas.

Assessment:

- Ask students to use the technique of collage to design a poster that advertises a train in their community or nearby communities. They can use the South Shore Line posters as a reference. What types of symbols and images would they include in their posters to inform others about their communities and themselves? They may cut out the different objects for their poster from magazines or colored construction paper and glue all the objects onto an 11" x 17" sheet of colored construction paper.
- Discuss the advertisements students have created, pointing out the connection between the images they have used and the messages they are trying to convey. Some students may wish to add their own captions to their ads, with the teacher's help, after the discussion.

Performance Criteria: Students should be able to create a poster that expresses their knowledge of the connection between trains and the local community, while controlling the media of **collage**.

Nation's Lifeline: Like railroad advertisements of the past, this contemporary poster uses the dramatic nature of trains and striking colors to convey a message about the importance of railroads.

Grades Three and Four: Just Around the Corner

Indiana's Academic Standards:

Grade Three: Visual Arts – Standard 1: Responding to Art-History (3.1.1); **Standard 3:** Responding to Art-Criticism (3.3.2); **Standard 7:** Creating Art-Production (3.7.3); **Standard 9:** Creating Art-Production (3.9.2). **Social Studies – Standard 3:** Geography (3.3.3).

Grade Four: Visual Arts – Standard 1: Responding to Art-History (4.1.3); **Standard 3:** Responding to Art-Criticism (4.3.2); **Standard 7:** Creating Art-Production (4.7.3); **Standard 9:** Creating Art-Production (4.9.2).

Procedures:

- ★ Present students with the three advertisement posters, 1. **Nation's Lifeline**, 2. **Chicago's Neighboring South Shore: Just Around the Corner Along the South Shore Line** and 3. **Just Around the Corner**.
 - that answer the questions: what? when? and where?
- ★ Help students become aware of the posters they see every day. Can they identify posters in the classroom and school? Where else have they seen posters?
- ★ Ask students how posters are used. Students will probably be able to determine that a **poster** is a picture that is used to convey information. It is usually "posted" or put up in a public place and is large enough for everyone to see it.
- ★ Discuss the purposes of **advertisements** and ask students to identify visual clues
 - ★ Provide a brief history of each poster for students, including the artist biography and the Indiana or Illinois community featured in these scenes along the railroad. Explain the connection of the name **South Shore Line** to the location of the railroad along the shore of Lake Michigan.
 - ★ Help students refer back to the content used in the South Shore Line advertisements and connect images to the meaning conveyed.
 - ★ Have students pick a specific **region** of Indiana that they feel they would like to know more about, or have them focus on the **region** that they live in. Ask students what landmarks, events or scenery symbolize that **community**.

Assessment:

- Ask students to design a poster that focuses on the Indiana region they have chosen using the technique of collage. Their advertisement must clearly advertise a train in that region of Indiana. It should be similar to the posters from the South Shore Line. What scenery, landmarks or symbols would they select for their posters as visual clues to clearly represent that region of Indiana? They may cut out the different objects for their poster from magazines or colored construction paper, and glue all the objects onto an 11" x 17" sheet of colored construction paper.
- Discuss student advertisements, pointing out the connection between visual elements and the message the student is trying to communicate. Ask each student to write a short caption that reflects the message and add it to the poster.

Performance Criteria: Students should be able to create a poster that expresses their knowledge of the connection between trains, a specific region of Indiana and their lives, while controlling the media of **collage**.

Train of Thought Journal:

Ask students to think about and record in their journals the words that they feel would encourage people to visit their community or region.



Tips for the Teacher:

In **Experience Two** students learn some of the ways ideas are conveyed through art and consider the connections between artists, art works and their communities. This experience is designed for classroom teachers. It also provides an opportunity for multidisciplinary work with the art teacher. The experience can be expanded to explore trains and transportation as thematic subjects in the visual arts. In addition to the South Shore Line posters presented here, European poster art of the 1920s and 1930s provide striking images. The book *All Aboard: Images From the Golden Age of Rail Travel* presents commercial art in the form of posters, advertisements and memorabilia along with social history and commentary on design eras.

The South Shore Line

The South Shore Line has been the premiere passenger service for Northwest Indiana and Chicago for many decades, and has been a wonderful resource for that area of Indiana, encouraging industrial growth and residential development.

The South Shore Line began in 1903 as a streetcar service that ran three and a half miles between East Chicago, Ind., and the Indiana harbor of Lake Michigan. Over the next few years the Line grew, stretching 70 miles from Hammond to South Bend. By the beginning of the 1920s, the Line had grown too

big too fast, and fell on hard times. In 1925, Samuel Insull bought the railroad and officially renamed it the Chicago South Shore and South Bend Line.

Insull set to work building the South Shore Line into a successful business. He launched a marketing effort that featured the places passengers could visit using the South Shore Line network. The campaign was based on posters showing unique Northwest Indiana scenery of beaches, shoreline, forest, dunes and industry.

Insull's efforts paid off in the 1920s, but the railroad suffered during the Depression. Since then, the South Shore Line has gone through ownership changes and many ups and downs, from an insurge of passengers from industries along the lake shore during World War II to lack of passenger interest in the 1960s and 1970s.

Today, the South Shore Line travels between South Bend, Ind., and downtown Chicago at Randolph Street, making many stops throughout the two-and-a-half-hour-long journey. It carries more than 13,000 passengers daily, and is developing plans to increase service to accommodate more passengers who wish to settle in northwest Indiana. To emphasize its connection to the communities it serves, the flourishing railroad has reintroduced poster advertisements. The poster series features landmarks and

scenery of modern day northwest Indiana and Chicago, while keeping with the style of the previous posters created in the 1920s.

Mitchell Markovitz

Mitchell Markovitz is one of the professional artists participating in the new series of South Shore Line posters. Markovitz, a native of Chicago, is now a resident of Knox in northwest Indiana. He studied art at the American Academy of Art, the Chicago Academy of Fine Art and the University of Wisconsin–Milwaukee. He is an accomplished artist and illustrator whose works are widely exhibited. He also has a dual career as a railroad man.

Since he was a child, Markovitz has had a passion for trains. He often accompanied his father on assignments as a commercial illustrator from the Illinois Central Railroad. After art school, Markovitz took a summer job as a brakeman on the Chicago and Northwestern Railroad. He went on to become a fireman and an engineer, the youngest in the country at the time. Later, he worked for the South Shore Line as advertising director and chief illustrator, but sometimes found that his services were also needed as an engineer!

Today Markovitz is a full-time artist who continues to express his love of trains. He has created several posters for the South Shore Line's new series, including those used in this lesson. He is featured in the



anthology *Moonlight in Duneland* along with poster artists of the 1920s. In connection with this project, Markovitz has worked with the Northwest Indiana Forum as founding artist and art director for the “Just Around the Corner” series of posters focusing on life in northwest Indiana. Markovitz often works with schools in his area of the state and encourages young artists to pursue the careers that are closest to their hearts.



The Children's Museum of Indianapolis

A Portrait of the Artist: Mitchell Markovitz admires the view from the cab of the Rueben Wells at The Children's Museum of Indianapolis. Markovitz has lived and worked with trains all of his life and researches his subjects carefully.

Museum Links at The Children's Museum:

Artists are at work at The Children's Museum. Visit our Web site for coming events related to artists and art works. The museum also provides many different types of opportunities for children to experience art at work. When you visit, ask students to see if they can find evidence of different types of art careers within the museum. Art applications are everywhere: in exhibits, in signs and in the theater. Choose an exhibit, such as *All Aboard!* Find all the different types of artwork it took to create the exhibit. In addition to the trains in *All Aboard!*, how many different types of transportation can your students find in other parts of The Children's Museum? There is a truck in *Passports*, a genuine Indy race car, information on space flight and many toys that relate to transportation, too. For hands-on transportation experiences, check out *All Aboard!*, the kit designed to accompany this unit, from the Teacher Resource Link. There is also a kit entitled *Away We Go: All About Transportation*, #15K001. Other teaching aids, books and videos are also available. Call the Teacher Resource Link at (317) 334-4001.

Resources:

For Students:

Crews, Donald. *Freight Train*. New York: Puffin Books, 1985.

For Teachers:

Cohen, Ronald, and McShane, Stephen G. (Eds.) *Moonlight In Duneland: The Illustrated Story of the Chicago South Shore and South Bend Railroad*. Bloomington: Indiana University Press, 1998.

Johnson, Lynn, and Michael O'Leary. *All Aboard! Images From the Golden Age of Rail Travel*. San Francisco: Chronicle Books, 1999.

Middleton, William D. *South Shore: The Last Interurban*. Bloomington: Indiana University Press, 1999.

Zega, Michael E. and John E. Gruber. *Travel by Train: The American Railroad Poster, 1870-1950*. Bloomington: Indiana University Press, 2002.

Web Sites:

Mitchell Markovitz: www.mitchmarkovitz.com

Northwest Indiana Forum: Sponsor of the South Shore Line Poster Campaign and in charge of the region's development, in Portage, Ind. www.nwiforum.org

The International Museum of Collage, Assemblage, and Construction. Sponsored by the Ontological Museum in Cuernavaca, Morelos, Mexico. www.ontologicalmuseum.org/museum/collage

Northwest Indiana Forum: South Shore Posters: Promotion site for posters. www.southshoreart.com



Culminating Experience: Train of Thought — An Inquiry Project

Getting Started — Choosing a Topic:

By now students have learned a lot about trains and are beginning to identify many more things that they want to learn. Help students read their Big Book of Trains or their individual **Train of Thought** journals to review what they know. Remind students of some of the stories, objects and pictures they have enjoyed and ask them if these make them think of things about trains that they would like to know more about. Share your own experiences, such as riding a train as a child, and help students discuss experiences and individual interests. Try to find out if there are some common themes. Help students to focus on the project topic by asking questions like these:

- What do you want to know more about?
- If you could talk to a train expert, what would you ask?
- What would you like to see and do with trains?
- What parts of a train would you like to draw, paint, photograph or model from clay?

Use the discussion to help students develop a series of questions that they would like to have answered. Record students' questions using a web or chart on poster paper or butcher paper.

Hamilton Railroad Watch, circa 1936:

A good watch was essential for railroad workers. Before the railroads, each community in the United States set its clocks independently. After railroads developed, towns began to set the local time by the trains that went by. By the 1880s, the country was divided into standard time zones.



The Children's Museum
of Indianapolis

Courtesy of Mitchell Markovitz

Family Connections:

As soon as a topic emerges, it is important to let families know about plans for the inquiry. Families may have experiences and information to share at home or may be resource persons for the classroom. They can also help guide field trips, provide opportunities at home to discuss ideas, check on progress, and serve as an audience for culminating presentations and products.

Researching the Topic — Fieldwork:

Once students have some questions mapped out, they have a focus for gathering data and information. Work with the media specialist to help students identify a wide range of sources, including primary documents and sources outside the classroom and school. Fieldwork provides a way for students to engage in firsthand, direct observation and experience. This can include visits to a real setting and interviews with people who have experience with the topic. In some cases, interviews can be conducted by phone. Students can help to plan a field trip to a museum or another site and accept responsibility for making drawings, documenting the visit and recording the information that they find. On site, they can be encouraged to use their observation skills to look for similarities and differences. They can also plan the kinds of questions they will ask of persons they will interview on site or in the classroom. Secondary sources of information to examine at this time might include books, magazines, newspapers and Web sites.



Back in the Classroom:

Having students communicate what they have observed and heard firsthand helps them to make sense of information and experiences that they have had. Modes of communication may include drawing or making a model of a train that they have actually seen from found objects, clay or other materials. Another way to help students integrate their personal thoughts and experiences is through dramatic play and role-playing activities. For example, students might imagine what it would be like if they were members of a family about to take a trip on The Reuben Wells. What would they be feeling as they stand on the platform by the big engine? What would they say to each other? What would they say when they get on board and feel the movement of the train? The work that students produce as they consolidate and organize information can be stored in personal folders or displayed in the classroom. Project display areas can be set up throughout the room as a way of recording students' newly developed knowledge for their own use and conveying it to others.

The Acela Express: Amtrak's high-speed train travels between Boston and Washington. At speeds of 150 mph, the train serves a number of cities along the way, including New York. The name "Acela" is a combination of the words "acceleration" and "excellence." Students may want to research the names given to trains and create some train names of their own.

Concluding the Inquiry:

The culmination of the project helps students bring closure to their work and demonstrate their knowledge and mastery of the topic. Bring students together to discuss and summarize what they have learned so that there is a sense of shared accomplishment. Then assist students as they make plans to communicate the results of their inquiry to an audience outside of their own classroom, such as another grade level or parents, or through a group presentation or demonstration of a product.

After the inquiry is complete, it is important for the teacher and students to evaluate the results of the project together. It is also important to help students carry out some form of self-assessment and reflect upon what they have learned individually. After cleaning up and storing the materials from the completed inquiry, students will be ready to go on to the next project. An inquiry project is never really over. It is always there to serve as a building block for a new experience, perhaps a project on other forms of transportation, a storybook- or poetry-making project, a train song festival, or an examination of the ideas expressed in different art forms. The power of trains is the power to search and explore new ideas.

Teacher Resource:

Katz, Lilian G. and Sylvia C. Chard. *Engaging Children's Minds: The Project Approach*. Stamford, Conn.: Ablex Publishing Corporation, 2000. Many of the suggestions above have been derived from this introduction and guide to project work, as well as from classroom teachers of young children.



Photograph by Amtrak



Train Glossary

All aboard – a term a conductor yells while a train is stopped at a station to tell passengers it is time to board the train before its departure.

Axle – the circular shaft connecting two wheels.

Baggage car – a car that carries passengers' baggage and oversized items.

Board – to get on a passenger train.

Brakes – four types of devices used on each car to stop or slow down the train: air, vacuum, dynamic and parking.

Brakeman – the person responsible for monitoring and applying brakes as directed by the engineer.

Bullet train – a style of streamlined train known for its speed and bullet-like shape.

Cab – a train car that holds all the train's controls, and where the engineer rides.

Caboose – the car at the end of the train where workers rode and rested.

Car – an enclosed railroad compartment for carrying passengers or freight.

Club car – a car with lounge seating where drinks are served to passengers.

Conductor – the person in charge of the train's passengers, doing things such as taking tickets.

Controls – the mechanisms an engineer uses to operate a train.

Coupler – the mechanism that connects train cars.

Cowcatcher – part of a train's front that removes objects from the tracks and the train's path.

Cross ties – pieces of wood that run horizontally to connect railroad tracks.

Diesel oil – one of the principal fuels for a train, used in diesel engines only.

Dome car – a double-decker passenger car that has a glass-domed upper level for viewing scenery, usually used on scenic rail routes.

Engine – the part of a locomotive that converts energy into mechanical work.

Engineer – the primary individual in charge of driving the train, or someone who designs locomotives.

Express train – a train that travels a direct route with few or no stops, offering a shorter trip.

Flange – a part of the train wheel that acts as a guidance system.

Freight – goods carried from location to location over great distances.

Fuel – the principal power source for a train.

Gandy dancers – people who worked on a section of a railroad gang that were known for the railroad songs they created and sang while working.

Gauge – equipment that helps regulate different systems throughout the train, such as pressure levels, brakes or water levels. Also, the distance between the two rails on a railroad track.

Generator – a machine that provides alternative energy.

Grade crossing – the intersection of a railroad and a road

High-speed train (HST) – any passenger train running over 200 km/h.

Hopper car – an open-topped train car with a slanted floor and door for easy loading and unloading.

Horn – a warning device operated by the engineer. The horn replaced the traditional whistle.

Interchange – a station where passengers can depart one train and board another on a different route.

Locomotive – a vehicle with a large engine that is used to pull or push connected train cars on railroad tracks.

Maglev train – a high-speed train that is pushed by magnets on the tracks repelling against the magnets on its cars. (Stands for **magnetic levitation**.)

Master controller – the train driver's main power control device located in the cab.

Overpass – a train crossing where a structure is built to allow a train to pass over something with no interference. They are often built over roads.

Passenger – a person who travels by train or another type of vehicle.

Radio – a wireless device that allows workers on a train to communicate with each other or with the station.



Railroad – a network of railroad tracks that provides train travel over differing distances; the company that owns and operates the network and the trains that run on it.

Railroad tracks – the system of two parallel steel rails and horizontal wooden cross ties that train wheels travel on.

Roundhouse – a circular building used for storing and repairing locomotives.

Signal – visual indication given to a train driver advising the speed, direction or route of the train. Types: hand signals, semaphore (flag) signals, cab signals and light signals.

Signal light – a light signal along the tracks showing indications to train drivers.

Signalman – the train worker responsible for coordinating signal lights along a specific section of track.

Sleeping car – a car that is part of a passenger train that provides sleeping quarters for its passengers.

Smokestack – pipe from which sparks and exhaust are conducted away from the train.

Spikes – giant steel nails driven into railroad tracks to hold cross ties and tracks in place.

Station – a location along a train's route where trains stop to load or unload passengers or freight; includes a building where passengers can buy tickets, get train times and wait.

Stationmaster – an individual who manages a train station.

Steel rails – the metal portion of railroad tracks that train wheels sit on, held in place by wooden cross ties and spikes.

Steward – a person who works on a passenger train, helping take care of the passengers' needs.

Streamlined – trains designed to let air flow more easily around them, to provide the least resistance.

Subway – an urban railway, running short distances either underground or above, carrying passengers only.

Switch – a mechanism that smoothly splits a railroad track into two tracks so that two trains can pass each other.

Third rail – an additional rail to transmit the electrical supply to an electric train.

Tunnel – a passageway constructed to allow trains to travel through mountains or under water.

Whistle – a warning signal to signalmen describing train routes at junctions, and to guards to signal for brakes; used by drivers before the installation of the horn.



National Standards

Kindergarten – Grade Four

Learning experiences in this unit of study help to address K–4 national academic standards in the following curriculum areas:

Lesson One:

Language Arts:

Standard 1 – Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves and of the cultures of the United States and the world.

Standard 3 – Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts.

Standard 5 – Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

Standard 6 – Students apply knowledge of language structure, language conventions, media techniques, figurative language and genre to create, critique and discuss print and nonprint texts.

Standard 8 – Students use a variety of technological and informational resources to gather and synthesize information to create and communicate knowledge.

Music:

Standard 1 – Students sing, alone and with others, a varied repertoire of music.

Standard 6 – Students listen to, analyze and describe music.

Standard 9 – Students understand music in relation to history and culture.

Social Studies – History:

Standard 6A – Students understand folklore and other cultural contributions from various regions of the United States and how they help to form a national heritage.

Lesson Two:

Language Arts:

Standard 1 – Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world.

Standard 5 – Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

Standard 6 – Students apply knowledge of language structure, language conventions, media techniques, figurative language, and genre to create, critique and discuss print and nonprint texts.

Standard 8 – Students use a variety of technological and informational resources to gather and synthesize information to create and communicate knowledge.

Social Studies – History:

Standard 2A – Students understand the history of their local community.

Standard 3E – Students understand ideas that were significant in the development of their state.

Social Studies – Geography:

Standard 1 – Students use maps and other geographic representations, tools and technologies to acquire, process and report information from a spatial perspective.



Standard 2 – Students use mental maps to organize information about people, places and environments in a spatial context.

Standard 6 – Students understand how culture and experience influence people's perceptions of places and regions.

Social Studies – Economics:

Standard 1 – Productive

Resources – Students know that:

Benchmark 3 – goods are objects that can satisfy people's wants.

Benchmark 4 – services are actions that can satisfy people's wants.

Standard 5 – Voluntary

Exchange – Students know that:

Benchmark 1 – exchange is trading goods and services with people for other goods and services or for money.

Standard 13 – Income and

Earning – Students know that:

Benchmark 2 – people can earn income by exchanging their human resources (physical or mental work) for wages or salaries.

Lesson Three:

Language Arts:

Standard 1 – Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves and of the cultures of the United States and the world.

Standard 5 – Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

Standard 6 – Students apply knowledge of language structure, language conventions, media techniques, figurative language and genre to create, critique and discuss print and nonprint texts.

Standard 8 – Students use a variety of technological and informational resources to gather and synthesize information to create and communicate knowledge.

Social Studies – History:

Standard 8A – Students understand the development of technological innovations, the major scientists and inventors associated with them and their social and economic effects.

Social Studies – Geography:

Standard 2 – Students use mental maps to organize information about people, places and environments in a spatial context.

Standard 6 – Students understand how culture and experience influence people's perceptions of places and regions.

Visual Arts:

Standard 1 – Students understand and apply media, techniques and processes.

Standard 3 – Students choose and evaluate a range of subject matter, symbols and ideas.