

## Table of Contents

Inquiry Activity	Begins on Page
<b>Food, Clothing and Shelter</b>	
• Building a Log Cabin	2
• Having Lunch	5
• Doing Laundry	7
<b>Families, Children and Schools</b>	
• Family Life During the Mining Era	9
• Contemporary Family Life	11
• Your Grandchildren’s Trunk	13
• Preserving Family Traditions	16
• Preserving Family History	18
• Your School Neighborhood: Then and Now	21
<b>Mining Work and Tools</b>	
• Women’s Work	23
• Changes in Mining Tools and Technology	25
<b>Mining Towns</b>	
• The Layout of a Mining Town	29
• Central City: Mining and the Environment	32
• Mining Town Brochure	34
• Your City: Then and Now	36
• Adopt a Building	38
• Preserve Main Street	40
<b>Community Life</b>	
• Mining Town Community Life	42
• Keeping Mining Town Celebrations	45
<b>Transportation</b>	
• Competing for Railroads	47

## **BUILDING A LOG CABIN**

Christopher Imhof, Montessori School of Denver

### **OVERVIEW**

Students will use primary sources to learn how miners in Colorado built log cabins. They will design and draw a model of a log cabin. Note that you may follow the procedure outlined below, or use those in conjunction with the Doing History CD-ROM or the Doing History web site.

### **STANDARDS**

- History Standard 2.2 Students know how to interpret and evaluate primary and secondary sources of information.
- Reading and Writing Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.

### **OBJECTIVES**

By the end of this activity, students will be able to:

- Explain why log cabins were a common form of shelter in early mining camps.
- Describe the practical problems involved in building a useful shelter out of logs cut from trees.
- Analyze or "read" photographs of log cabins to explain how miners solved the problems involved in the construction of log cabins.
- Design and draw a model of a log cabin and explain the steps involved in constructing it.

### **INQUIRY QUESTIONS**

- Why were log cabins popular during the early days of a mining camp?
- What materials were used in the construction of a log cabin?
- What tools were needed to build one?
- Were most log cabins single-story or multi-story? Why?
- What problems were involved in heating log cabins? How were they solved?
- What problems were involved in constructing a roof for a log cabin? How were they solved?
- What kind of floors did log cabins have?

## PROCEDURE

1. Print out the material described below from the Doing History CD-ROM disk or from the Doing History web site:
  - Open the disk (or web site)
  - Click on the Mining topic
  - Click on the Food, Clothing, and Shelter theme
  - Click on Shelter sequence:
    - Print: Photo 1, "A Miner and his Dogs"
    - Print: Photo 1, In Their Own Words, "A Fine Log Cabin"
    - Print: Photo 3, "A Family in Front of Their Cabin"
  - Click on Interiors sequence:
    - Print: Photo 1, "Inside a Miners' Cabin"
    - Print: Photo 1, In Their Own Words, "Si Dore's Cabin at Bonanza"
    - Print: Photo 2, "A Miners' Cabin"
2. Make an overhead transparency of the attached Log Cabin Focus Questions.
3. Divide the students into small groups, giving each group a set of the photographs and primary source excerpts.
4. Have the students in their groups analyze the photographs by working through the list of questions included on the transparency.
5. After the students have completed the "reading" of the photos, ask them to describe practical problems involved in constructing log cabins and how the photographs indicate how those problems were solved.
6. Ask each group to role-play being a group of miners who are about to build a log cabin. They are to describe the process in writing following this sequence:
  - Draw a picture of each side of the cabin and an overview to help visualize the task.
  - Note the number of people the cabin must house and the materials available to build it.
  - Make an outline of the steps involved in building it:
    - Gathering logs, etc.
    - Add details by explaining how each step is accomplished.
    - Make a list of the problems that might occur and how they intend to solve them.
7. Have each group present its design and describe the process used to build the cabin.

8. Conclude the activity with a discussion of the importance of preserving historic log cabins. Why preserve them? What historical value do they have?

## HAVING LUNCH

Kim Hamilton  
Carbondale Elementary School, Carbondale  
Cathy Lasell  
Cameron Elementary School, Greeley  
Kathy Williams  
Tarver Elementary School, Thornton

### OVERVIEW

Students will construct a mining town lunch menu based on an historical photograph and compare it to a present-day lunch menu. They then write a "restaurant review" based on each menu.

### STANDARDS

- History Standard 2: Students know how to use the processes and resources of historical inquiry
- History Standard 4: Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.
- Reading and Writing Standard 2: Students write and speak for a variety of purposes and audiences.

### OBJECTIVES

After completing this activity, students will be able to:

- Analyze an historical photograph.
- Draw conclusions based on historical evidence.
- Make comparisons between past and present.

### INQUIRY QUESTIONS

- What food did the lunchroom advertise?
- How much did lunch items cost then?

- How much would that be in present-day prices?
- How much do comparable items cost today?

## PROCEDURE

1. Doing History/Keeping the Past CD-ROM disc or website--Mining topic; Mining Towns theme; store fronts sequence.
2. This activity will require the use of the following historical photograph:
  - MINING TOWNS THEME
  - Store Fronts Sequence:
  - Photo 5 (A Lunch Room)
3. Students can access this photograph in one of the following ways:
  - Send students individually or in small groups to the computer station to examine the photo on a CD-ROM or Internet site while other students are working on other assignments.
  - Print out and copy the photograph, giving copies to each group of students.
  - Send the class to a computer lab where all the students can examine the photograph on the Internet site at the same time.
  - Project the CD-ROM or Internet-site screen with this photograph for the entire class by using a multi-media or LCD projector.
4. Ask students to examine the photograph and to list the food items advertised there along with the cost of these items.
5. Bring to class a menu from a fast-food restaurant in your community for price comparisons.
6. Have the students use the photograph and the present-day menu to answer the inquiry questions. Be sure to tell them that the purchasing power of a present-day restaurant customer is at least 20 times greater than that of their mining-camp counterparts. That is, the comparable price of those items today would be at least 20 times higher than the posted prices.
7. Ask the students to write a review of the two restaurants. It should include their opinions about the variety of food choices available, prices, quality, and restaurant atmosphere.
8. Have students share their reviews. Use this sharing session as a springboard to discuss the economics of supply and demand, with emphasis on the relation between scarcity of food and food prices.

## **DOING LAUNDRY BY HAND: KEEPING THE PAST ALIVE**

Christopher Imhof  
Montessori School of Denver

### **OVERVIEW**

Students will use primary and secondary sources to learn how clothes were cleaned in Colorado mining camps.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- History Standard 3: Students understand that societies are diverse and have changed over time.

### **OBJECTIVES**

After completing this activity, students will be able to:

- Describe how clothes were washed in the Colorado mining camps.
- Explain how keeping clothes clean was associated with gender and ethnic work roles.
- Describe the occupations open to Chinese laborers in Colorado mining camps.

### **INQUIRY QUESTIONS:**

- Who washed clothes in Colorado mining camps?
- What tools were used in clothes washing?
- Why was washing clothes traditionally considered women's work?
- Why was washing clothes an occupation open to Chinese laborers?

## PROCEDURE

1. You will need to obtain hand laundry tools; clothing.
2. Assemble the materials needed for a demonstration of the hand-cleaning of clothes: wash tubs, rinse tubs, scrub boards, bars of laundry soap, a clothes line, and old, badly-soiled clothing. If possible, gather enough equipment for two or three laundry stations.
3. Prior to class, fill tubs 1/2 full with warm water
4. Begin a class discussion about how clothes were cleaned by hand in the past. Introduce the basic tools and briefly describe the process.
5. Divide the students into teams and give each team its share of the dirty laundry. Its task is to clean the clothing by scrubbing each item on the soapy board, rinse the items in a separate tub, wring out each piece, and hang the clothing on the clothes line. Some members of the class can be photographing or video taping the procedure while waiting for their turn.
6. After the laundry has been washed, continue the discussion by introducing the idea of work and gender roles. Why were women and girls traditionally assigned the task of laundering clothes? (It's an in-the-home activity; its associated with sewing and making clothes; its very hard work.)
7. Then pose this question: in mining camps in which women were scarce, to whom was the occupational role of clothes laundering assigned? To focus the discussion, introduce the following primary source, a letter from Westcliffe, Colorado dated 1887:

"The backyard of a house, has now a tenant in person of Mr. San Lee, a 'heathen Chinee' who keeps a laundry and lives in the said house. He makes no objection to my getting water at his well, so I still continue, but I suppose it is rather impudent on my part, so I must take it up by giving him some collars to wash, for I cannot starch these myself."

Source: Theodore A. Cockerell, *Letters from Westcliffe*, p; 39.  
Originals in the Norlin Library Archives, Boulder, Cockerell papers.

8. Continue the discussion by explaining that Chinese immigrants had difficulty finding jobs in Colorado. In California, they had been excluded from mining, even. Ask the students what the opening of the laundry occupation to the Chinese says about how white miners regarded Chinese immigrants.

## **FAMILY LIFE DURING THE MINING ERA**

Cynthia Stout, Instructional Services, Jefferson County Schools  
Sandra Stokely, Ellis Elementary School, Denver

### **OVERVIEW**

Students will analyze historical photographs in order to understand family life in Colorado mining camps and towns of the late 19th century (1870-1900).

### **STANDARDS**

- History Standard 3.2: Students understand the history of social organization in various societies.
- Reading and Writing Standard 3: Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling.

### **OBJECTIVES**

At the end of this activity, students will be able to:

- Gather information from historical photographs.
- Gather information from primary sources.
- Draw conclusions about mining families in Colorado during the last third of the 19th century.
- Describe family life in Colorado mining towns and camps.

### **INQUIRY QUESTIONS**

- What was family life like in Colorado mining camps and towns?
- What kind of work did women do?
- What kind of housing was available to families?
- What did children do for recreation?

### **PROCEDURE**

1. Print and copy the following historical photographs (alternatively, you may decide to have students use the Doing History CD-ROM or the Project web site):

#### **FAMILIES AND CHILDREN THEME:**

- Families and Children Sequence:
  - Photo 1 “A Mining Town Family”
  - Photo 2 “Two Children from Cripple Creek”

Photo 3: “A Boy with a Burro”

- Schools Sequence:  
Photo 6: “The Principal and Teachers”
  
- Clothing Sequence:  
Photo 6 “A Mine Manager’s Family in Front of Their Cabin”

FROM THE DOING HISTORY ARCHIVES

- Weary Days of Labor and Pain
- Taking in Boarders
- Keeping a Boarding House
- Dress Making
- Hotel Work
- Maude Park in Her Summer Kitchen

2. Divide students into groups; give each group a set of the above photographs and primary sources; assign one of the inquiry questions to each member of the group. As the photographs are passed, each student is to record information that answers his/her inquiry question.

3. After all the photographs and sources have been analyzed, instruct students to share the information they gleaned from the photographs with other members of their group.

4. Ask the students in each group to create a play about life in the mining regions of Colorado in the late 19th century.

5. Ask each group to perform its play for the entire class.

6. Debrief the information from the group performances and help students draw conclusions about family life in mining camps.

## **CONTEMPORARY FAMILY LIFE**

Cynthia Stout, Educational Services Center  
Jefferson County Public Schools, Golden  
Sandra Stokely, Ellis Elementary School, Denver

### **OVERVIEW**

Students in this historic preservation activity will interview their parent(s) about the family life of their generation. Students will compile an archive that includes these interviews as well as descriptions of their own family life.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- History Standard 3: Students understand that societies are diverse and have changed over time.
- Reading and Writing Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.

### **OBJECTIVES**

After completing this activity, students will be able to:

- Record information from parent interviews.
- Write about their own family life.
- Contribute to the Doing History/Keeping the Past family life database.

### **INQUIRY QUESTIONS**

- What is family life like in Colorado today?
- What was family life like when your parents were your age?
- What are some of the issues about family life in our society (single families, divorce, etc.)?

- What were the issues about family life when your parent(s) were growing up?
- What family structures exist in today's society?
- What family structures were common when your parents' were young?

## PROCEDURE

1. You will need the Doing History/Keeping the Past CD-ROM or website; Mining topic, Food, Clothing and Shelter theme, Clothing sequence.
2. CD-ROM Use: Print out and make six-to-eight copies of the following historical photographs:  
FOOD, CLOTHING, AND SHELTER THEME, Clothing Sequence:  
Photo 1: Three People at a Mining Cabin  
Photo 4: A Family Portrait  
Photo 5: Mr. and Mrs. Paul Peyer at Home  
Photo 6: A Family in Front of Their Cabin
3. Divide the class into six-to-eight groups and give each group a set of the four photos. Ask what these photos tell them about families in the mining regions of Colorado in the late-19th century? (Some possible responses are that families did live in mining camps and that the traditional family structure of parents and children existed, along with families that consisted only of husband and wife.)
4. Then ask the students to discuss and record their responses to the inquiry questions above about family life in Colorado today.
5. Ask the students to write two accounts of family life based on their responses:
  - The first account is of their parent(s) family life when they were their age.
  - The second account is of their family life today
6. When the accounts are in their final forms, students will donate them to the class database or archive on family life.

## **YOUR GRANDCHILDREN'S TRUNK**

Cynthia Stout, Educational Services Center  
Jefferson County Public Schools, Golden  
Sandra Stokely, Ellis Elementary School, Denver

### **OVERVIEW**

Students in this historic preservation activity will collect objects to be placed in a "trunk" to be saved for their grandchildren. The objects will illustrate important times and places in each child's life as well as intangibles, such as values and traditions.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.

### **OBJECTIVES**

After completing this activity, students will be able to:

- Select objects that represent various aspects of their lives
- Analyze and interpret objects from other student trunks
- Begin to value the idea of preserving things from their lives for those in the future
- Better understand and appreciate another classmate's life experiences
- Identify and appreciate the cultural heritage of others.

### **INQUIRY QUESTIONS**

- What objects (artifacts) illustrate important things about my life?
- What objects (artifacts) illustrate my cultural and/or ethnic heritage?
- What things of mine do I want to pass on to my grandchildren?
- What can be learned about my life from my trunk?

- What can I learn about my classmates' lives from their trunks?

## PROCEDURE

1. Obtain artifacts and “trunks” or boxes to be provided by the students.
2. CD-ROM Use: This activity does not require the use of the CD.
3. Begin a discussion with students about the value of preserving personal belongings:
  - Tell your students about a belonging that you had growing up that you did not save, but wish that you had, and why it is important to you now. Or put together your own trunk as a model for the students
  - Ask students to ask a parent about an object they had as a child that they now treasure
4. Explain to students that they will be making their own trunk, which they will add to over time and preserve for their grandchildren.
5. Discuss with them the types of things that need to be included in the trunk that will help people in the future understand their lives and values
6. Ask the students to begin thinking about the things they will include in their trunk.
  - Students are expected to find ten objects that will serve as artifacts in their trunks
  - Each object should represent a unique aspect of their life.
7. After students have completed their handout, ask them to bring the objects to school in a box or "trunk."
  - Each student should give the teacher his/her artifact list
  - At this point, there should be no name on the trunks as students will randomly exchange trunks
8. Ask students to evaluate one another's trunks:
  - Can a student identify the owner of the trunk by the items included?
  - Ask students to write a brief description of the person whose trunk they viewed
  - After the description has been written, as students to pair up according to who produced the trunk and who evaluated it and discuss which aspects were accurate and which were not, and why.
9. As a class, share the results of looking at others' trunks.
  - How often were students able to correctly identify the owner?
  - What objects gave the best hints as to whom the trunk belonged?

10. Ask students to take their trunks home for safe-keeping.
  - Talk about safe places to keep the trunks.
  - Talk about the need to add to the trunk as students change and grow

## **PRESERVING FAMILY TRADITIONS**

Keesha Narenkivicius, Columbine Elementary School,  
Grand Junction  
Ty Bliss, Prairie Ridge Elementary School  
Longmont

### **OVERVIEW**

Students will gather information about their own family's traditions and consider ways to preserve them.

### **STANDARDS**

- History Standard 3: Students understand that societies are diverse and have changed over time.
- Reading and Writing Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.

### **OBJECTIVES**

After completing this activity, students will be able to:

- Interview members of their family and do family history research.
- Identify celebrations, customs, and ways of doing things that are part of their family tradition.
- Take the initiative in recording and preserving family traditions.

### **INQUIRY QUESTIONS**

- What is a family tradition?
- What celebrations, customs, and ways of doing things are part of your family tradition?
- How can you find out more about your family's traditions?
- How can you help preserve your family's traditional customs?

## PROCEDURE

1. Obtain writing materials and poster paper.
2. Have the class brainstorm things that their families do that might be considered family traditions. Prompt them to think about things they do and eat at birthdays, holidays, or seasons of the year.
3. Ask your students to choose one of their traditions and write a paragraph describing it. Then ask them to explain in writing how they would feel if that tradition suddenly ended.
4. Break into small groups, sharing paragraphs and feelings.
5. Have the students take the paragraph home to share with their mother, father or whoever is responsible for keeping that family tradition alive. They should interview that person to find out about its origin and to gather information that will help preserve that tradition. This could include recording the procedure, writing down the recipe(s) or learning the skills involved.
6. The product of this activity could be an informational poster, sharing the tradition with the class, or depositing a written record about the tradition in the class archives. Sharing food is nice, too!

## **PRESERVING FAMILY HISTORY**

Ty Bliss  
Prairie Ridge Elementary School, Longmont  
Keesha Narenkivicius  
Columbine Elementary School, Grand Junction

### **OVERVIEW**

Students will gather and help preserve information about their family history.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- Reading and Writing Standard 3: Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling.

### **OBJECTIVES**

Students will be able to:

- Interview members of their family.
- Do family history research.
- Take the initiative in recording and preserving their family history.

### **INQUIRY QUESTIONS**

- Who are the people in your old family photographs?
- Why should you record the names of people in old photographs?

### **PROCEDURE**

1. Photos brought to class by the students. A Family Memory Record Sheet to preserve information from the photographs (see below).

2. Ask each student to find four or five old family photographs that include at least one person who is not identified and whom they do not recognize. Ask them to bring one of those photographs to class.
3. Have each student do a "think aloud" with that photograph. That is, the student should express his/her own curiosity about who the unidentified person is, whether he/she may have been a relative, and point to clues (such as where and when the photo was taken) that may help answer these questions.
4. Emphasize that the importance of recording the names of family members who appear in old photographs while there is still someone around who recognizes them. Otherwise, the family may lose track of its history.
5. Hand out the "Family Memory Record Sheet" (see below) and ask the students to interview a parent or relatives who can help them identify the unrecognized persons in the photographs they have selected. They should record the information on the sheet.
6. On a designated day, the students are to bring the photographs and the record sheet to school and share their information with the class.
7. They can then make a photo album with their photographs, writing captions using the information they have gathered. (This may help some students notice and read captions in books!)
8. Students should be encouraged to continue collecting information about other family pictures.

## Family History Record Sheet

Brief Sketch of Photograph

Who?  
\_\_\_\_\_

How are the people related to you?  
\_\_\_\_\_  
\_\_\_\_\_

Where?  
\_\_\_\_\_

When?  
\_\_\_\_\_

What was the event? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Why was the photo taken?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **YOUR SCHOOL NEIGHBORHOOD: THEN AND NOW**

Tina Loos,  
East Memorial Elementary School, Greeley

### **OBJECTIVES**

The purpose of this activity is to have students document how the neighborhood in which their school is located has changed over time.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- History Standard 3: Students understand that societies are diverse and have changed over time.
- Geography Standard 4: Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.

### **OBJECTIVES**

After completing this lesson, students will be able to:

- Conduct an interview of a long-time resident of the neighborhood.
- Describe how the neighborhood has changed over time.
- Identify and photograph the most historic sites in the neighborhood.
- Preserve photographs of the oldest buildings and houses in the neighborhood.

### **INQUIRY QUESTIONS**

- How has your school neighborhood changed over time?
- Which are the oldest buildings or houses in the neighborhood?
- How can you preserve an historical record of these sites?

## **PROCEDURE**

1. Obtain a (digital) camera.
2. Take students on a walking tour of the neighborhood around your school. Have them observe and make notes about landmarks (big trees, lakes, etc.). Make photographs of the oldest buildings and houses.
3. Invite a long-time resident of the neighborhood to class to talk about changes over time.
4. Have students create a map on which they use their photographs and notes draw the landmarks and oldest buildings and houses.
5. Save the photos by making a classroom archive on your computer. If you did not use a digital camera to take the photographs, you may scan them into the computer.

## **WOMEN'S WORK DURING THE GOLD RUSH**

Cynthia Stout, Instructional Services, Jefferson County School  
Sandra Stokely, Ellis Elementary School, Denver

### **OVERVIEW**

Students will read primary source documents in order to understand the role of women and place of families in early (1858-1865) Colorado mining camps and towns.

### **STANDARDS**

- History Standard 2.2: Students know how to interpret and evaluate primary and secondary sources of information.
- History Standard 3.2: Students understand the history of social organization in various societies.
- Reading and Writing Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.

### **OBJECTIVES**

Students will be able to:

- Read and gather information from primary source documents
- Draw conclusions about the role of women in Colorado during the Pikes Peak Gold Rush
- Write about the life of women in Colorado during the Gold Rush

### **INQUIRY QUESTIONS**

- What was life like for women living in early Colorado mining camps?
- What kinds of work did women do?
- In what ways did women help their families economically?

### **PROCEDURE**

1. CD-ROM/Internet use: print and copy the following primary source documents for use in student groups (the following documents are all available in the Doing History Archives):
  - There Were Few Families (from Mining Families)
  - Weary Days of Labor and Pain (from Mine Women's Work)
  - Taking in Boarders (from Mine Women's Work)
  - Keeping a Boarding House (from Mine Women's Work)

- Dress Making (from Mine Women’s Work)
  - Hotel Work (from Mine Women’s Work)
2. Divide students into four groups and give each group multiple copies of one of the above documents.
  3. Ask students in each group to read their documents and discuss the important points.
  4. Have each group agree on the salient points of their document and record those points on a piece of paper.
  5. Jigsaw members of the original groups into new groups.
  6. Ask students to share their knowledge with others in the group.
  7. Based on the information shared in the group, they should draw conclusions about the life of women and their families in early Colorado mining towns.
  8. Share that information in a class discussion.
  9. Ask each student to write a paragraph describing the lives of women in early Colorado mining towns.

## **CHANGE IN MINING TOOLS AND TECHNOLOGY**

SaraJane Ericson, Burlington Elementary School, Longmont  
Jim Giese, Hewit Institute, UNC

### **OVERVIEW**

The overall purpose of this lesson is to show students that the tools and technologies used in gold mining and mine work changed or evolved over time. The tools and methods of gold mining changed from simple and over time they became more and more complex and costly.

### **STANDARDS**

- History Standard 2.2: Students know how to interpret and evaluate primary and secondary sources of information.
- History Standard 2.3: Students apply knowledge of the past to analyze present-day issues and events from multiple, historically objective perspectives.

### **OBJECTIVES**

By the end of this activity, students will be able to:

- “Read” photographs and other primary sources relating to mining tools and technology.
- Identify and place in proper chronological order mining tools and technologies related to three major periods of mining in Colorado.
- Create a poster, using symbols, pictures, photos and other representations, demonstrating the three main phases of mining technology in Colorado.

### **INQUIRY QUESTIONS**

- What kinds of tools were used in placer mining? Were most people working for themselves?
- What kinds of tools were used in the next stage of gold mining? How was work organized? Were most people working for themselves?
- What kinds of tools and technologies were used in the industrial stage of gold mining? How was work organized? Were most people working for themselves?

- What work did men, women, and children do in gold mining? Are these types of work different from coal mining?
- How ethnically diverse are the people you see in the photographs of mining?
- Does mining take place in your region today? If so, how does it differ from early gold mining and coal mining?

## PROCEDURE

1. Provide each group of students with a packet of photographs. (These materials are available in the Appendix below. If you can print these photos with a laser printer, your students should find them quite “readable.”) We suggest you use the following photographs and short text sources for this activity:

### MINING WORK AND TOOLS THEME:

#### Placer Mining Sequence:

- Photo 1: A Placer Miner
- Photo 2: Placer Miners at Work
- Photo 3: Drawing of Gregory’s Diggings
- In Their Own Words 3: “Placer Mining”
- Photo 4: Placer Mining in Russell Gulch
- Photo 5: Placer Mining with a Sluice

#### Quartz Mining Sequence:

- Photo 1: Pete Pourtalis at Poverty Bar
- In Their Own Words 1: “Gregory’s Diggings”
- Photo 2: Using Horse Power
- Photo 3: Mine Timbering
- Photo 5: Miners at the Saratoga Mine

#### Smelting Sequence:

- Photo 1: The Grant Smelter in Leadville
- In Their Own Words 1: “A Pueblo Smelter”
- Photo 2: A Smelter in Western Colorado
- Photo 4: The American Smelter
- In Their Own Words 4: “The Argo Smelter”

2. Looking at tools and technologies, sort the photographs of work by time, from earliest to latest. What clues did you look for to tell you which came first, next, and so forth? Share you findings (and reasons) with your classmates.

3. After they compare their findings (orderings), tell the students what the chronological order of the photographs actually was. Ask students to point out what kinds of clues they think worked best in sorting the photos; post these traits.
4. Have students (or pairs/groups) create a three panel sheet of paper for use as a poster (use 12' x 18' sheet of construction paper; have student fold the sheet of paper in thirds width-wise). In the panels from left to right, have students draw (or include a photocopy) mining tools (or make symbols) that represent each of the three stages of gold mining in Colorado (individual placer, lode, industrial mining). Place student work on the walls of your room and have students compare the similarities and differences of their posters.

### **EXTENSION ACTIVITY ONE**

Extension Activity One. Have your students go on the [Virtual Field Trip of the Lebanon Mine and Mill](http://Hewit.unco.edu/dohist/vftrips/mining/lebmine/tourmenu.htm), between Georgetown and Silver Plume Colorado. The URL for this “field trip” is <http://Hewit.unco.edu/dohist/vftrips/mining/lebmine/tourmenu.htm>.

### **EXTENSION (PRESERVATION) ACTIVITY TWO**

Mining (contemporary) and/or Boulder County history (as a test case, which might be impossible to do in any number of counties or places). Thus the questions might be what can you find out about mining in your community (in your region or county). Or, find out what mining is currently taking place in your community or region. What kinds of mining are taking place and what is its purpose; where are they taking place?

One of the things you may want your students to think about is that modern miners usually do a better job of reclaiming the land after they have mined the materials they were after. One way to demonstrate this difference is to have students analyze several of the historical photographs that show damage to the environment caused by mining in the 19<sup>th</sup> century. Have them compare these photos with those (they might take themselves) of close-by mines (e.g., gravel pits) that have been reclaimed with lakes and parks.

### **EXTENSION PRESERVATION ACTIVITY THREE**

You may consider have your students conduct oral history interviews with older folks in the community who may have been miners or involved in mining (either coal, precious metals, hard rock, or others). You should help students preservation the transcripts and tapes of the oral history interviews they conduct. You may consider working with your local historical society to preserve these interviews there. At a minimum, you should make certain these transcripts and interviews are preserved and made available in your school's library/media center.

## THE LAYOUT OF A MINING TOWN

Tanya Weir, Philips elementary School, Denver  
Juli Reutter, Ellis Elementary School, Denver

### OVERVIEW

Students use information and evidence about Colorado mining towns to design their own mining town.

### STANDARDS

- History Standard 2.2 Students know how to interpret and evaluate primary and secondary sources of information.
- Reading and Writing Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.

### OBJECTIVES

Students will be able to:

- Find information about mining towns using primary and secondary sources.
- Identify different kinds of buildings, businesses, and services that existed in Colorado mining towns.
- Use this information to design their own Colorado mining town.

### INQUIRY QUESTIONS

- What physical features (mountains, gullies, creeks, rivers, etc.) restricted where and how towns could be built?
- What kind of buildings did mining towns have? How many stories? What materials were they made of?
- What kind of businesses and services did mining towns need?
- What kind of housing (single-family, hotels, boarding houses, etc.) existed in mining towns?

### PROCEDURE

1. This activity will require the use of the following historical photographs:

#### MINING TOWNS THEME

- Central City Sequence: Photos 1-3
- Store Fronts Sequence: Photos 1-5
- Houses Sequence: Photos 1-4
- You may also wish to integrate some text-based sources into this activity. Check out the sources in the Doing History Archives: Mining Towns.

2. Students can access these photographs in one of the following ways:
  - Send students individually or in small groups to the computer station to examine the photos on a CD-ROM or Internet site while other students are working on other assignments.
  - Print out and copy the photographs, giving copies to each group of students.
  - Send the class to a computer lab where all the students can examine the photographs on the Internet site at the same time.
  - Use a multi-media projector or overhead with an LCD projector to show the photographs to the entire class.
3. Hand out the Mining Towns investigation sheet (see below) and ask the students to complete the sheet while they are viewing the photographs.
4. Have the students (individuals/groups) use the information they have found to design an ideal, 19th-century mining town. They should include physical features, names of businesses, street names, a variety of housing, etc.
5. Students complete the activity by presenting their mining town to the class. In their reports, they should distinguish between essential elements and non-essential ones that may add comfort and pleasure.

## MINING TOWNS INVESTIGATION SHEET

### INSTRUCTIONS:

Use primary and secondary sources provided by your teacher to find the information needed to answer the questions below. To use the *Doing History/Keeping the Past* CD-ROM disk or Internet site for this assignment:

- Open the disk (or access the web site: <http://Hewit.unco.edu/dohist/>)
- Click on Mining topic
- Click on Mining Towns theme
- Click on the Central City sequence and examine the three photographs
- Click on the Store Fronts sequence and examine the five photographs there
- Click on the Houses sequence and examine those photographs

### FOCUS QUESTIONS:

1. What physical features restricted where and how towns could be built?

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2. What were buildings like in mining towns? (How many stories? What materials were they made of? )

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3. What kind of businesses and services did mining towns have?

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4. What kind of housing was available in mining towns? Were individual houses the only places in which to live?

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## **Central City: Mining and the Environment**

Tanya Weir Philips Elementary School, Denver;  
Juli Reutter Ellis Elementary School Denver

### **OVERVIEW**

Students examine primary sources to understand the environmental impact that early mining activities had on the Central City area.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- History Standard 4. Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.
- Geography Standard 2: Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

### **OBJECTIVES**

At the end of this activity, students will be able to:

- Describe the impact mining had on the landscape near Central City.
- Use primary sources to trace changes over time.

### **INQUIRY QUESTIONS**

- What impact did mining have on the environment of the Central City area?

### **PROCEDURE**

1. Print out the photo of Central City, 1864, and the three excerpts about the environmental degradation caused by miners there from the *Doing History/Keeping the Past* CD-ROM disk or Internet Website.
  - a. Open the disk
  - b. Click on the Mining topic

- c. Click on the Mining Towns theme
  - d. Click on the Central City sequence (click the In Their Own Words buttons for photos #1 and #2 to find the three excerpts)
2. Make an overhead transparency of the photo; make classroom sets of the three excerpts.
  3. Begin by showing the transparency of the Central City photo. Ask the students if the photo contains any evidence of environmental change caused by mining activities (the hillsides are nearly bare of vegetation).
  4. Hand out the three excerpts and have the students read them. (They describe the environmental changes that took place).
  5. Show the transparency again and ask if there is anything they want to add to their first assessment of the photo.

## **TOWN BROCHURE**

Kim Hamilton, Carbondale Elementary School, Carbondale  
Cathy Lasell, Cameron Elementary School, Greeley  
Kathy Williams, Tarver Elementary School, Thornton

### **OVERVIEW**

Students will create a brochure that identifies historic sites in their own town.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- Reading and Writing Standard 2: Students write and speak for a variety of purposes and audiences.
- Reading and Writing Standard 3: Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling.
- Reading and Writing Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.
- Reading and Writing Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technological sources.

### **OBJECTIVES**

After completing this activity, students will be able to:

- Identify sites in their town that have historic importance.
- Photograph or draw pictures of these sites.
- Write summaries explaining why these are historic sites.

### **INQUIRY QUESTIONS**

- How do you decide whether a building or place is important historically?

- What buildings or places in your town have historical importance?
- Why are these sites important historically?
- What would you include in a brochure that described these places?

## **PROCEDURE**

1. Obtain a camera (digital is best); Chamber of Commerce brochures from nearby cities.
2. Take photographs of several sites in your community that have historical importance.
3. Have the class brainstorm why (in general) places have historical value? (Oldest building, example of an interesting architectural style, location where an important event took place, etc.?)
4. Show the students the photographs or transparencies of the places that you selected. Ask if they can think of other places that should be included.
5. Ask the students to explain why these particular sites have historical value.
6. Divide up the work for producing a brochure. Provide time for the students to take additional photographs, write summaries for each photo, and design the brochure. Look at brochures from other towns as examples.
7. Publish and display the brochure in a prominent place in the school or in the community.

## **YOUR CITY: THEN AND NOW**

Tina Loos  
East Memorial Elementary School, Greeley

### **OVERVIEW**

This activity will have students compare past and present-day photographs of historical buildings in your city.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- History Standard 3: Students understand that societies are diverse and have changed over time.
- Geography Standard 4: Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.

### **OBJECTIVES**

After completing this activity, students will be able to:

- Locate historical photographs of their city.
- Identify buildings in historical photographs that still exist.
- Make sketches or take photographs of historic buildings
- Explain how the preservation of historical photographs contributes to our understanding of the communities in which we live.

### **INQUIRY QUESTIONS**

How has your city's "landscape" changed over time?

Where can you find historical photographs that show how your city used to look?

Which buildings in your community that were photographed in the 1880s or 1890s still exist?

How can you help preserve historic buildings?

## **PROCEDURE**

1. Obtain a (digital) camera and prints of historical scenes in your city or town.
2. Make arrangements with your local historical society, public library or other repository of historical photographs for a field trip for your students. Or order prints of historical photographs from such institutions to show in class. Select street scenes that include buildings that still exist.
3. Provide the necessary background information about the photographs being studied. You may want to invite a local historian to class for the students to interview.
4. Take your students on a field trip to the area depicted in the photos so that they can photograph and take notes about the present-day site.
5. Have the students write several small paragraphs comparing the historical photos to their present-day photos. What has changed? What has remained the same?
6. Save the set of photos by making a classroom archive on your computer. If you did not use a digital camera to take the present-day photographs, you may scan them and the historical prints into the computer.

## **ADOPT A BUILDING**

Christopher Imhof  
Montessori School of Denver

### **OVERVIEW**

This activity uses primary and secondary sources to help students learn about local history and the methods of historic preservation.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- Geography Standard 2: Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.
- Reading and Writing Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technological sources.

### **OBJECTIVES**

After completing this activity, students will:

- Expand their knowledge of local history by "adopting a building" in their community.
- Learn about architectural aspects of historic buildings.
- Research the history of a building.

### **INQUIRY QUESTIONS**

- What year was the building constructed?
- Who built it?
- Who was the architect? What is the style of architecture?

- What materials were used to build it?
- What was the building used for?
  
- Who used or lived in the building?
  
- How has the building changed over time?

## **PROCEDURE**

1. Obtain a (digital) camera; use appropriate materials from the Doing History/Keeping the Past CD-ROM or website (Mining and Colorado Cities Topics; Virtual Field Trips).
2. Identify a building in your town or neighborhood suitable for class "adoption," involving students in this decision to the extent possible.
3. Take photos of the building, with close-ups of its significant architectural features. These might include stairs, railings, cornerstone, foundation, brick pattern, window design, door styles, etc.
4. Involve students in finding out everything they can about the history of the building. As resources, use libraries, the local historical society, interviews with long-time residents or owners of the building. Develop a set of inquiry questions for this building (see Inquiry Questions above as starters). Compare this building with buildings on the Virtual Field Trips for the Mining and Colorado Cities topics.
5. Have students investigate why and how this building has been preserved and whether it should be preserved for the future.
6. Have students assemble their research by making a poster or scrapbook.

## **PRESERVE MAIN STREET ACTIVITY**

Christopher Imhof  
Montessori School of Denver

### **OVERVIEW**

In this activity, students will learn about local history and methods of historic preservation.

### **STANDARDS**

- History Standard 2: Students know how to use the processes and resources of historical inquiry.
- Geography Standard 2: Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.
- Reading and Writing Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technological sources.

### **OBJECTIVES**

After completing this lesson, student will:

- Expand their knowledge of local history by investigating the history of "Main Street."
- Learn about architectural aspects of historic buildings.
- Research the history of several buildings.

### **INQUIRY QUESTIONS**

- Where is your city or town's historic "Main Street?"
- Which are the most important or most interesting buildings?
- What is their style of architecture?
- How have these buildings changed over time?

- How is "Main Street" different from other downtown areas or streets?

## **PROCEDURE**

1. You will need multiple copies of a street map of your town or city; a (digital) camera; the Doing History/Keeping the Past CD-ROM or website—Mining and Colorado Cities topics; Virtual Field Trips.
2. Using copies of street maps, ask the students to identify your city's historic "Main Street." What are the hallmarks of such a street?
3. Take photographs of several buildings on Main Street.
4. Using libraries, historical societies, local historians and other resources, have students find out what functions Main Street, and these buildings in particular, served.
5. Have students use the Virtual Field Trips for the Mining and Colorado Cities topics to compare their Main Street with others.
6. Using historical photographs, have students investigate how buildings or sections of Main Street have changed.
7. Have students pull their research together as a scrapbook, poster or brochure about Main Street.

## **MINING TOWN COMMUNITY LIFE**

Tanya Weir, Philips elementary School, Denver  
Juli Reutter, Ellis Elementary School, Denver

### **OVERVIEW**

Students use information and evidence about community life in Colorado mining towns to create a brochure to attract settlers to a hypothetical mining community.

### **STANDARDS**

- History Standard 2.2: Students know how to interpret and evaluate primary and secondary sources of information.
- History Standard 3.2: Students understand the history of social organization in various societies.
- Reading and Writing Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.

### **OBJECTIVES**

After completing this activity, students will be able to:

- Find information about mining town community life using primary and secondary sources
- Identify different kinds of community institutions and activities, including churches, schools, celebrations, recreational activities, sporting events, etc. that existed in Colorado mining towns
- Use this information to create a brochure to promote a hypothetical Colorado mining town

### **INQUIRY QUESTIONS**

- What community activities or events brought people together in Colorado mining towns? (Church attendance, sporting events, celebrations, etc.)
- What were churches like in mining communities?
- What kind of recreational or sporting events brought people together?
- How well balanced was the ratio of men, women, and children in Colorado mining towns?
- What would make a mining community an attractive place to live?

### **PROCEDURE**

1. This activity will require the use of the following historical photographs:

- MINING COMMUNITY LIFE THEME
  - Holidays and Fairs Sequence: five photographs
  - Religion Sequence: four photographs
  - Sports and Entertainment Sequence: five photographs
2. Students can access these photographs in one of the following ways:
    - Send students individually or in small groups to the computer station to examine the photos on a CD-ROM or Internet site while other students are working on other assignments.
    - Print out and copy the photographs, giving copies to each group of students.
    - Send the class to a computer lab where all the students can examine the photographs on the Internet site at the same time.
    - Project the CD-ROM or Internet-site screen with these photographs for the entire class by using a multi-media or LCD projector.
  3. First, brainstorm what students like about the community in which they live. Make a list of the attractions. Include sporting events, seasonal celebrations, the arts, parks, and other attractive features.
  4. Discuss why people live in communities.
  5. Then hand out the Mining Towns Community Life investigation sheet and have students examine the photographs identified above.
  6. Have the students (individuals/groups) use the information they have found to design a brochure to persuade people to move to a hypothetical mining town. Be sure to have students:
    - Review the basic elements of a brochure; look at samples from AAA to see how different towns/organizations have portrayed their town; plan the layout of the brochure.
    - Include the name of the town, illustrations of its attractive features, and a list of community activities.
    - Make the brochure as attractive as possible.
  7. Have the students present the brochures to the class.

**MINING TOWN COMMUNITY LIFE  
INVESTIGATION SHEET**  
(Tanya Weir and Juli Reuter)

**INSTRUCTIONS:**

Use primary and secondary sources provided by your teacher to find the information needed to answer the questions below. To use the *Doing History/Keeping the Past* CD-ROM disk or Internet site for this assignment:

- Open the disk
- Click on Mining topic
- Click on Community Life theme for photographs of community activities

FOCUS QUESTIONS:

1. What community activities or events brought people together in Colorado mining towns?

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2. What were churches like in mining communities?

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3. What kind of recreational or sporting events brought people together?

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4. How well balanced was the ratio of men, women, and children in Colorado mining towns?

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5. What would make a mining community an attractive place to live?

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## **KEEPING MINING TOWN CELEBRATIONS**

Tanya Weir  
Philips Elementary School, Denver

Juli Reutter  
Ellis Elementary School, Denver

### **OVERVIEW**

Students learn about Leadville's Winter Carnival as a point of departure for finding out about historic celebrations in their own community. It may be used as an enrichment activity for individual students or as a small-group activity for an entire class.

### **STANDARDS**

History Standard 2: Students know how to use the processes and resources of historical inquiry.

Reading and Writing Standard 2: Students write and speak for a variety of purposes and audiences.

Reading and Writing Standard 3: Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling.

### **OBJECTIVES**

By the end of this activity, students will be able to:

- Investigate an historical community celebration (Winter Carnival at Leadville; Ice Palace).
- Explain the value of historical traditions to a community.
- Write a letter to a local community leader advocating the preservation or restoration of a local celebration.

### **INQUIRY QUESTIONS**

- What winter event did Leadville celebrate during the mining era (Winter Carnival)?
- How was that event celebrated in a special way in 1896 (building the Ice Palace)?
- What seasonal celebrations take place in your community?
- Are any of these celebrations a part of your community's history?

- How could you help preserve or restore a celebration that is part of your community's history?

## **MATERIALS**

- Doing History/Keeping the Past CD-ROM disc or website--Mining topic; Community Life theme; Holidays and Fairs sequence.
- Brochures advertising major community events in your city.

## **PROCEDURE**

1. Print out photographs from the Doing History/Keeping the Past CD-ROM disk or Project website (<http://hewit.unco.edu/dohist/>) of the Leadville Winter Carnival and the Ice Palace of 1896. Make several sets.
  - Open the CD-ROM disk
  - Click on the Mining topic
  - Click on the Community Life theme
  - Click on the Holidays and Fairs sequence
2. Write the inquiry questions above on the chalkboard or on an overhead transparency.
3. Divide students in small groups.
4. Pose the first two inquiry questions above; hand out the sets of photographs; give the students time to develop a group answer.
5. Using local tourism brochures or Chamber of Commerce handouts, list and discuss your community's celebrations. Decide which are historical? (Introduce the students to celebrations that may once have been observed, but which have been discontinued.)
6. As a whole- or small-group activity, decide which celebrations have the most historical value to your community.
7. Pose the final inquiry question and have students write a letter to an appropriate community leader explaining why this celebration should be preserved or restored.

## **COMPETING FOR RAILROADS**

Ty Bliss  
Prairie Ridge Elementary School, Longmont

Keesha Narenkivicius  
Columbine Elementary School, Grand Junction

### **OVERVIEW**

Students will use primary and secondary sources to learn about the role of transportation in the growth of mining towns and the development of the Colorado Territory.

### **STANDARDS**

History Standard 2: Students know how to use the processes and resources of historical inquiry.

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

Geography Standard 2: Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.

Geography Standard 4: Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.

### **OBJECTIVES**

At the end of this activity, students will be able to:

- Describe the role of railroads in the development of mining in Colorado.
- Describe the role of geography in determining where railroads were built.
- Assess the pros and cons of building a railroad to different mountain locations.

### **INQUIRY QUESTIONS**

- How did miners and mining companies use railroads?
- Why were railroads important to the growth of mining towns?
- What were some of the factors that railroad companies considered when deciding where to build railroads?

## PROCEDURE

1. This activity will require the use of the following historical photographs:  
MINING TRANSPORTATION THEME  
Railroad Sequence: All photos
2. Students can access these photographs in one of the following ways:
  - Send students individually or in small groups to the computer station to examine the photos on a CD-ROM or Internet site while other students are working on other assignments.
  - Print out and copy the photographs, giving copies to each group of students.
  - Send the class to a computer lab where all the students can examine the photographs on the Internet site at the same time.
  - Use a multi-media projector or an overhead projector with an LCD panel to project the CD-ROM- or Internet-site screen for the entire class to see.
3. Ask the students think about why railroads were important to Colorado mining towns and the role of geography in determining where railroads were built as they examine the photographs. Afterwards conduct a discussion focused on these questions.
4. Then divide the class into the following groups:
  - Citizens of Coalville (assign roles, such as shopkeeper, livery stable owner, banker, miner, etc.)
  - Citizens of Goldton (see above)
  - Stockholders and Directors of the Great Western Railroad
5. The railroad representatives plan to build a railroad to one of the two towns. The citizens of each town must try to persuade the railroad agents why it will be to the town's and the railroad's advantage to built to their town rather than to the other one. The railroad representatives will record the pros and cons of each town as the basis for a decision.
6. Distribute Handout 1 and Handout 2 sheets (see below) to both groups of citizens (but not to the railroad agents):
7. After the students have presented their case for the railroad building to their town, the stockholders and directors must make a decision. They should decide in favor of the town they believe will make the most money for the railroad. They must then explain their decision to the townspeople.

8. Have students debrief the activity. How has this simulation helped them understand the role railroads played in the development of Colorado during the mining era?
9. Make connection with the present by asking students to brainstorm ways that different modes of transportation have benefited or detracted from the quality of life in their community.

## Handout 1

### Characteristics of Coalville:

- Located in a mountain valley accessible by a gradual incline. The only obstacle in the railroad's path is one mountain range that must be tunneled through (at great expense) or built around (increasing the distance and cost).
- Rise in elevation from the valley floor to Coalville is 2,000 feet in 20 miles. No leveling of land or building of railroad grades required.
- Surrounding forests consist of scrub oak and a few aspen trees, which are not suitable for railroad ties or for construction purposes.
- Local streams provide adequate drinking water, but water for the steam locomotives must be hauled in.
- The coal mines at Coalville are highly productive. They will provide plenty of cheap coal for railroad locomotives.
- The brother-in-law of the president of the Great Western owns many town lots in Coalville.

## Handout 2

### Characteristics of Goldton:

- Located in a mountain valley accessible by a steep incline. However, there are no mountains to be tunneled through or built around. There is one river that must be bridged.
- Rise in elevation from the valley floor to Goldton is 5,000 feet in 20 miles. This means the railroad must build costly switchbacks and still more bridges over canyons before it can lay its track.
- Blizzards and avalanches are frequent in the winter.
- Dense old-growth pine forests will provide ample timber for railroad ties and other construction.
- Water for steam locomotives is plentiful.
- There are no coal deposits near Goldton.
- Gold was recently discovered in the Goldton region. Although the future is uncertain, the first mines are fabulous producers of gold ore. The ore must be shipped to mills located at the base of the mountains.