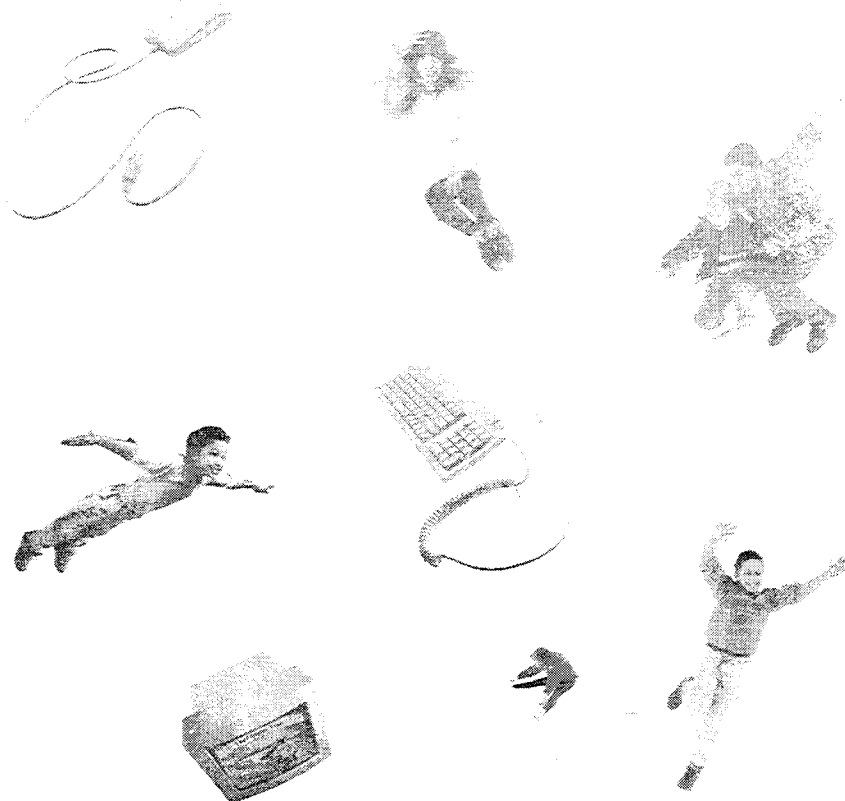


# Lewis and Clark Stayed Home

No. A-279  
Instructional Computing Courseware  
for Apple® II Series Computers



*for the love of learning*

**mecc**

# Lewis and Clark Stayed Home

No. A-279  
Instructional Computing Courseware  
for Apple® II Series Computers



*for the love of learning*

This manual is compatible  
with  
the *Lewis and Clark Stayed Home* disk  
Version 1.x

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**Library of Congress Cataloging-in-Publication Data**

**Lewis and Clark stayed home [computer file]. — Version 1.0.**

1 computer disk ; 3 1/2 in. + 1 manual.

System requirements: Apple II series computers; 128K RAM; ProDOS; BASIC; 1 disk drive; monochrome or color monitor.

Title from title screen.

Edition statement from disk label.

Copy-protected.

Audience: Grades 5-9.

Issued also on 5 1/4 in. computer disk.

Summary: Students get to explore the Louisiana Purchase in place of Lewis and Clark. To have a successful mission, students are challenged to map the Louisiana Purchase, establish friendly contact with Native American tribes, and attempt to find a route to the Pacific Ocean.

"A-279"— Disk label.

1. Louisiana Purchase—Juvenile software. [1. Louisiana Purchase—Software] I. Minnesota Educational Computing Corporation.

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ISBN 0-7929-0168-1

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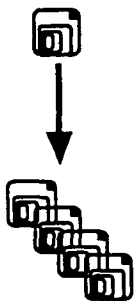
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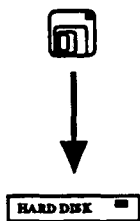
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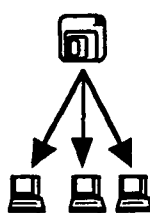
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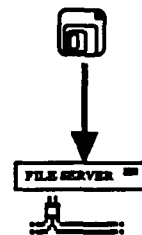
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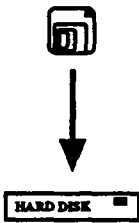
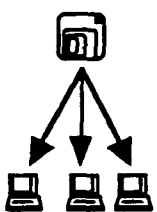
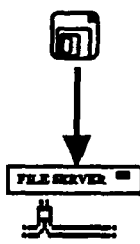
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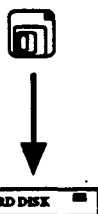
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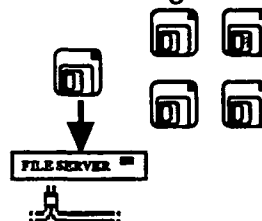
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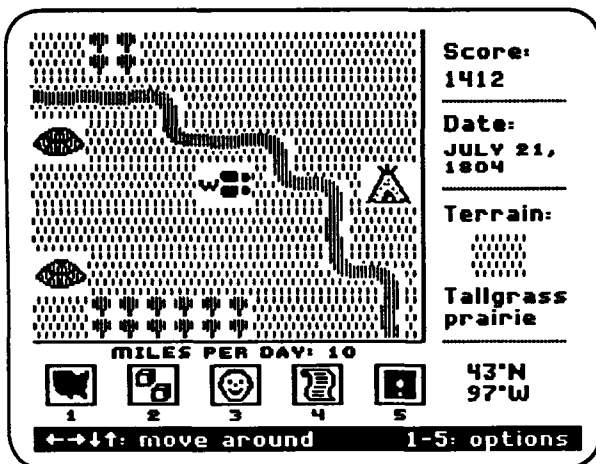
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## THE PRODUCT AT A GLANCE



- Title: *Lewis and Clark Stayed Home*
- Curriculum Area: Social Studies
- Subject Area: American history; geography
- Grade Range: 5-9
- Principal Topics:
- the Lewis and Clark expedition
  - American Indian tribes
  - North American geography
- Type: Simulation game; role-playing adventure
- Time Required: 15-30 minutes (at Beginner level)  
30-60 minutes (at Expert level)
- Student Goals: To gain as many points as possible by:
- exploring and mapping the Louisiana Purchase and the Pacific Northwest
  - finding a route to the Pacific Ocean
  - establishing friendly contacts with the native people
  - returning to St. Louis within the allotted time
- Computer: 128K Apple II series; color monitor recommended
- Related Themes:
- the presidency of Thomas Jefferson
  - the Louisiana Purchase
  - the exploration of North America
  - beginnings of the American westward expansion
  - cultural diversity on the American frontier
  - American Indian tribes prior to European contact
  - the impact of European contact on Native Americans
  - rivers, landforms, and landmarks of North America

## DESCRIPTION OF THE PROGRAM

*Lewis and Clark Stayed Home* is a simulation in which you take the role of a contemporary of Meriwether Lewis and William Clark. As the game begins, you receive a letter from President Thomas Jefferson explaining the scenario. It seems that Lewis and Clark have both become quite sick and hence will not be able to lead the expedition. As a result, you have been asked to take their place. You are given the same list of objectives that had previously been given to Lewis and Clark, and you are transported to St. Louis to take command of the party assembled there.

As you depart from St. Louis, you are free to lead your party in whatever direction seems most appropriate to you. You may explore anywhere within the Upper Louisiana Territory and the Oregon Territory. As you travel, you will map the rivers, mountains, waters, and landmarks of this unknown land. You will collect new species of plants and animals. You can enter the Native American villages you encounter, where you may attempt to trade or to interview the inhabitants. As your needs and circumstances change, you may choose to examine the expedition roster and change the assigned tasks of the various party members. At any time, you can review what you have accomplished so far. When you feel that you have done enough (or if your time is running out), you can head back to St. Louis.

### Instructional Philosophy

*Lewis and Clark Stayed Home* is not designed to provide a didactic review of the journey of Lewis and Clark. Instead, it puts you "in their shoes," facing the same unknowns that they faced. As you make your journey, you learn many of the same things that Lewis and Clark themselves learned on their journey: details of the geography, the native people, and the flora and fauna of western North America. By actually taking the role of Lewis and Clark, you can better appreciate the objectives of their journey, the kinds of decisions they had to make, and the kinds of information they gathered.

The strongest aspect of *Lewis and Clark Stayed Home* is, perhaps, its depiction of the diversity of Native American life in the early 1800s. Thirty different villages can be visited, each representing a different tribe. These villages differ in their clothing, their housing, their foods, their languages, their natural environments, their economic bases, and several other factors. Perhaps of greatest interest, the reactions of these tribes to the arrival of your expedition also varies considerably.

Because of the variety of topics covered, combined with the open-ended simulation design, *Lewis and Clark Stayed Home* can be tied to several different aspects of the curriculum. The most likely applications are American history, Native American culture, language arts, and geography. Other possible tie-ins include natural science and even applied math. Hence, this product is ideal for any of several multi-disciplinary approaches. (For a more thorough discussion of curriculum applications, see "Suggested Lesson Plans.")

## A GUIDED TOUR THROUGH THE PROGRAM

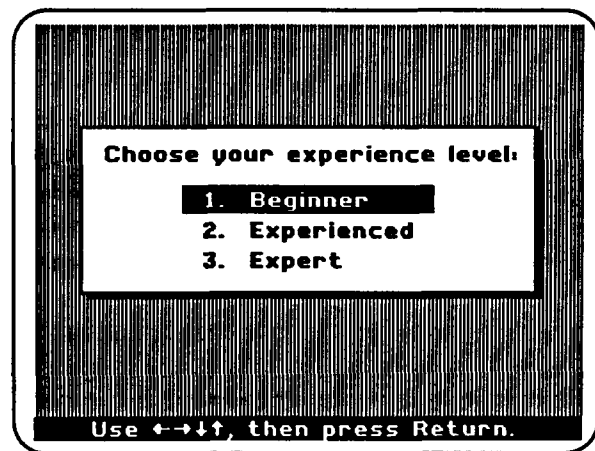
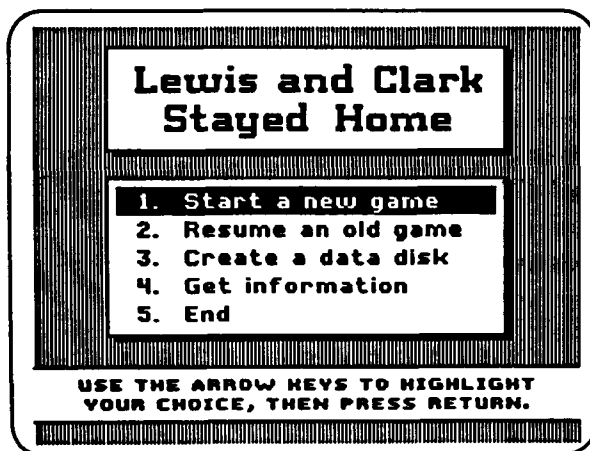
This section is intended as a demonstration and quick introduction to the product. You can use it in several ways:

- *As a preview before examining the software.*  
Simply read the text and study the illustrations for the quickest possible overview of the software. Then start up the disk and explore on your own.
- *As a guided tour through the software.*  
To get a feel for how this product works, start up the software on your computer, then follow the step-by-step directions.
- *As a follow-up to your initial examination of the software.*  
Open the disk and begin exploring on your own; then turn to this section to see if you have missed any of the basic operations.
- *As a starting point for planning your own demonstration.*  
If you plan to demonstrate the software to your students or to other teachers, this section makes a good starting point for planning your demonstration.

You should note that the "Guided Tour" is just one of many possible paths through the product. *Lewis and Clark Stayed Home* offers a very rich environment for exploration, leaving it to the player to decide what and how much to explore. This open-ended structure also provides you, the teacher, with a great deal of flexibility as to which aspects of the program you wish to emphasize in your lessons.

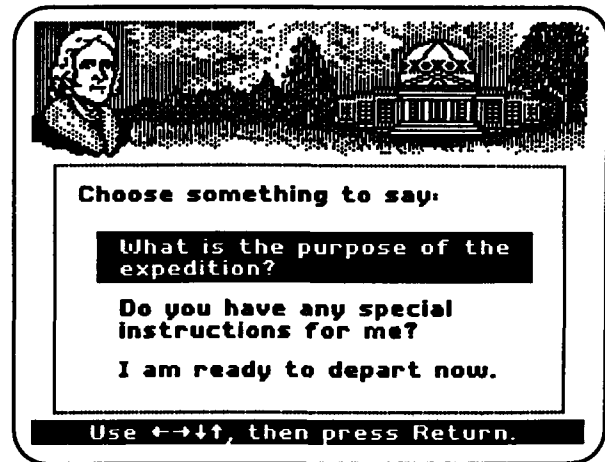
### The Guided Tour Begins Here

From the Main Menu of *Lewis and Clark Stayed Home*, choose the first option, *Start a new game*. Choose the Beginner level.

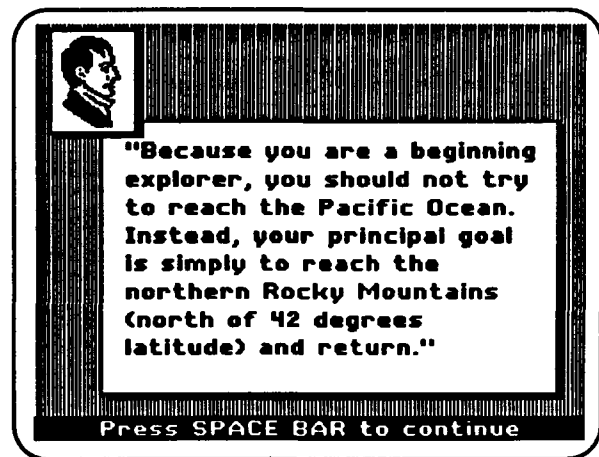
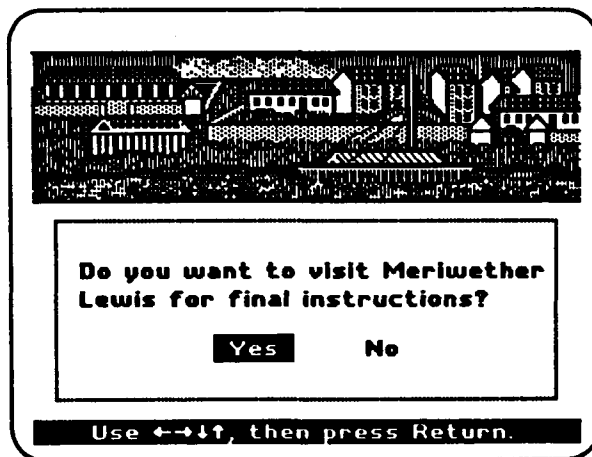


## A GUIDED TOUR THROUGH THE PROGRAM (continued)

You will be asked to type in your name and to choose one of the six characters to represent yourself. When asked if you would like to visit Jefferson, choose *Yes*. Ask Jefferson about the purpose of the expedition, then ask for any special instructions. Now tell Jefferson goodbye, and you will be on your way to St. Louis.



When you arrive in St. Louis, you will be asked if you want to speak to Meriwether Lewis. Choose *Yes*. After you receive final instructions from Lewis, the expedition will begin.

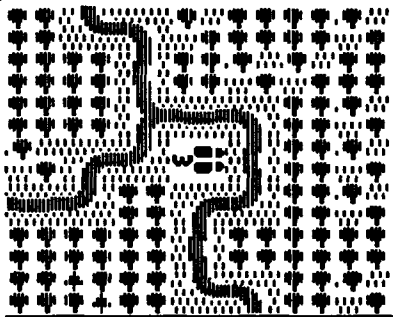


As the expedition begins, you see a pair of footprints representing the expedition party. This is the "travel screen." You can see the landscape around your immediate location (which, at this time, is still St. Louis). Along the right panel of the screen are several items of information: current score, current date, current terrain, and current position (latitude and longitude). Just below the travel view is one more piece of information: your current rate of speed (in miles per day).

## A GUIDED TOUR THROUGH THE PROGRAM (continued)


Press the Left-Arrow Key three times. With each press of the arrow key, you will travel westward by one "block." Each block is about 15 miles across. The entire landscape will shift with you, bringing new land into view.

Now turn south by pressing the Down-Arrow Key three times. You will cross a river. Notice how the various items of information on the screen are updated each time you move. Change direction again and travel eight blocks to the west. In front of you will be a Native American village. Continue forward to that block of land. You will automatically enter the village.



Score: 0

Date: APR. 1, 1804

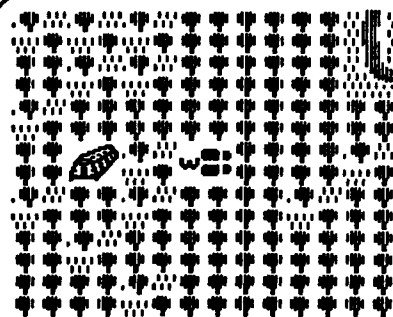
Landmark:  St. Louis

MILES PER DAY: 0

39°N 90°W


1 2 3 4 5

←→↑↓: move around 1-5: options



Score: 101

Date: APR. 24, 1804

Terrain:  Broadleaf forest

MILES PER DAY: 9

38°N 93°W

1 2 3 4 5

←→↑↓: move around 1-5: options

Upon entering, you learn that this is a village of the Osage tribe and that it is friendly. The next screen provides you a choice of questions and comments for engaging the villagers in conversation. This is the "Dialog screen." Choose the first comment, *"We have come as friends."* The villagers will respond to your comment. Choose the next comment, *"Please accept our gifts."* After the villagers respond, you will have the opportunity to select a gift. Present the Osage with a gift of three knives.



You have entered a native village.  
The tribe is: Osage  
The inhabitants appear: friendly

Press SPACE BAR to continue

**Osage**

CHOOSE SOMETHING TO SAY:

WE HAVE COME AS FRIENDS.  
PLEASE ACCEPT OUR GIFTS.  
WILL YOU TRADE WITH US?  
WHAT IS YOUR MESSAGE FOR US?  
GOODBYE. WE ARE LEAVING NOW.

LEARN ABOUT THIS VILLAGE:

TELL US ABOUT YOUR TRIBE.  
HOW DO YOU BUILD YOUR HOMES?  
WHAT ARE YOUR USUAL FOODS?  
TELL US ABOUT THIS LAND.  
WHO ARE FRIENDS AND ENEMIES?  
HOW DID YOUR TRIBE GET HERE?  
WHAT THINGS DO YOU MAKE?

USE ←→↑↓, THEN PRESS RETURN. ? : HELP  
ESCAPE: LEAVE WITH NO GOODBYE

## A GUIDED TOUR THROUGH THE PROGRAM (continued)

Now choose the question, "Will you trade with us?" The Osage, being friendly, will agree. You will see a list consisting of two columns. The left column shows all of the equipment and supplies of the expedition. The right column shows items that belong to the village, but only those items which they are willing to trade. (They undoubtedly have other items which they want to keep for themselves or for other purposes.) Your first step is to choose something you would like to obtain from the village. Choose *Produce*. In return for their produce, offer *Beads*.

Goods Available for Trading		
	EXPEDITION (TOTAL)	VILLAGE (EXCESS)
MEAT	5068 LBS.	1500 LBS.
FLOUR	4136 LBS.	800 LBS.
PRODUCE	2636 LBS.	300 LBS.
MEDALS	210	0
BEADS	180 LBS.	0 LBS.
KNIVES	60	0
CLOTH	300 YDS.	0 YDS.
PAINT	54 LBS.	0 LBS.
RIFLES	30	3
SHOT	2948 LBS.	0 LBS.
POWDER	1474 LBS.	0 LBS.
HORSES	30	1
BLANKETS	120	5
HIDES	79 LBS.	190 LBS.

CHOOSE AN ITEM THAT YOU WOULD LIKE TO OBTAIN FROM THE VILLAGE.

T: HELP

Use ←→↑↓, then press Return.


Goods Available for Trading		
	EXPEDITION (TOTAL)	VILLAGE (EXCESS)
MEAT	5068 LBS.	1500 LBS.
FLOUR	4136 LBS.	800 LBS.
PRODUCE	2636 LBS.	300 LBS.
MEDALS	210	0
BEADS	180 LBS.	0 LBS.
KNIVES	60	0
CLOTH	300 YDS.	0 YDS.
PAINT	54 LBS.	0 LBS.
RIFLES	30	3
SHOT	2948 LBS.	0 LBS.
POWDER	1474 LBS.	0 LBS.
HORSES	30	1
BLANKETS	120	5
HIDES	79 LBS.	190 LBS.

WHAT WILL YOU TRADE FOR PRODUCE?

Use ←→↑↓, then press Return.

Now you must specify quantities. Offer 2 pounds of beads for 300 pounds of produce. They will refuse. Re-state your offer, increasing the amount of beads offered. Continue doing this until you are able to strike a deal.

We'll give you 2 lbs. of BEADS for 300 lbs. of PRODUCE.



We'll give you 300 lbs. of PRODUCE for 18 lbs. of BEADS.

AVAILABLE: BEADS=180 PRODUCE=300

Press SPACE BAR to continue

We'll give you 8 lbs. of BEADS for 300 lbs. of PRODUCE.



We accept your offer.

AVAILABLE: BEADS=180 PRODUCE=300

Press SPACE BAR to continue



## A GUIDED TOUR THROUGH THE PROGRAM (continued)

When asked if you want to continue trading, say *No*. You will return to the Dialog screen. Access the Help screen by pressing the ? Key. Upon returning to the Dialog screen, choose several other questions and comments and read the responses. (Note: Do NOT choose "We are leaving now" until you are ready to leave.) After you have obtained at least three check marks, tell the villagers that you are leaving. You will return to the Travel screen.

**Help**

You can earn points by successfully completing a trade with the village.

You also earn points if you can get the villagers to answer at least 3 of the questions under "Learn about this village."

Each time the villagers answer one of these questions, a check mark will appear beside the question.

Press SPACE BAR to continue

**Tell us about this land.**



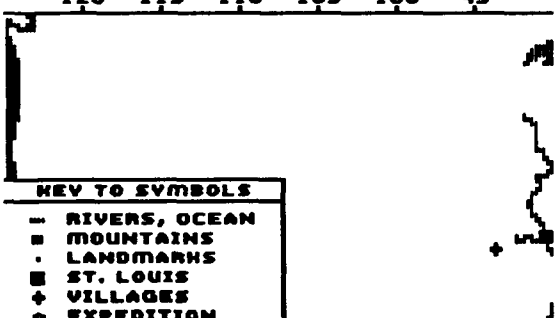
Our land is wooded with patches of prairie. We live along the Osage River. We prize the wood of the Osage orange tree for making bows.

Press SPACE BAR to continue

Notice that your score has increased. Also note the "icons" along the bottom of the screen. These icons represent the other actions you may take, besides traveling around. Press the 1 Key. You will see an overview map. Other than the Pacific coastline and part of the Mississippi River, the only things that appear on this map are what have been discovered by your expedition. Return to the Travel screen, then press the 2 Key. You will see a current list of all your equipment and supplies. Near the bottom of the screen are several useful pieces of information, such as how much meat your hunters are gathering.

**MAP OF THE WESTERN TERRITORIES**  
BY PAT HENNESSY

120° 115° 110° 105° 100° 95°







**KEY TO SYMBOLS**

- RIVERS, OCEAN
- MOUNTAINS
- LANDMARKS
- ST. LOUIS
- ♦ VILLAGES
- ♦ EXPEDITION

TAB: SHOW LATITUDE  
ESC: TRAVEL SCREEN

**Equipment & Supplies**

FOOD		MEAT	5088 LBS.
		FLOUR	4122 LBS.
		PRODUCE	2922 LBS.
GIFTS		MEDALS	210
		BEADS	172 LBS.
		KNIVES	60
		CLOTH	300 YDS.
GUNS		PAINT	84 LBS.
		RIFLES	30
		SHOT	2946 LBS.
OTHER		POWDER	1472 LBS.
		HORSES	30
		BLANKETS	120
		HIDES	82 LBS.

PEOPLE IN PARTY: 14

FOOD USAGE: 56 LBS./DAY

FOOD SUPPLY: 216 DAYS


HUNTING RESULTS: 36 LBS./DAY

Press SPACE BAR to continue

## A GUIDED TOUR THROUGH THE PROGRAM (continued)

Return to the Travel screen and press the 3 Key. You will see a complete roster of the expedition. The first name, Ordway, is currently highlighted. Press the Return Key to see a profile of Ordway. Notice that you can change Ordway's assignment by pressing the arrow keys. Change his assignment, then change it back to Sergeant. Press the ? Key to see an explanation of the various tasks. Return to the Roster screen, then to the Travel screen.

EXPEDITION ROSTER	
CAPTAIN: PAT HENNESSY	
<b>ORDWAY</b> SERGEANT	<b>CRUZATTE</b> PACK CREW
<b>DROUILLARD</b> HUNTER	<b>FLOYD</b> PACK CREW
<b>J. FIELD</b> HUNTER	<b>REED</b> PACK CREW
<b>R. FIELD</b> COLLECTOR	<b>SHANNON</b> PACK CREW
<b>PRYOR</b> MAPPER	<b>VORH</b> PACK CREW
<b>GASS</b> COOK	
<b>SHIELDS</b> CAMP GUARD	
<b>BRATTON</b> CAMP GUARD	
<b>COLTER</b> PACK CREW	
←→↑↓: CHOOSE      RETURN: NEW TASK ESC: TRAVEL SCREEN	

PROFILE OF John Ordway	
<b>CURRENT TASK:</b> Sergeant	<b>CHANGE TASK TO:</b>
<b>SKILLS:</b> Leadership Reading & writing Horsemanship	 <b>SERGEANT</b>
<b>LANGUAGES:</b> English	
<b>BACKGROUND:</b> An army sergeant who volunteered to join the expedition.	
←→: CHANGE TASK      ? : HELP ESC: PARTY LIST	

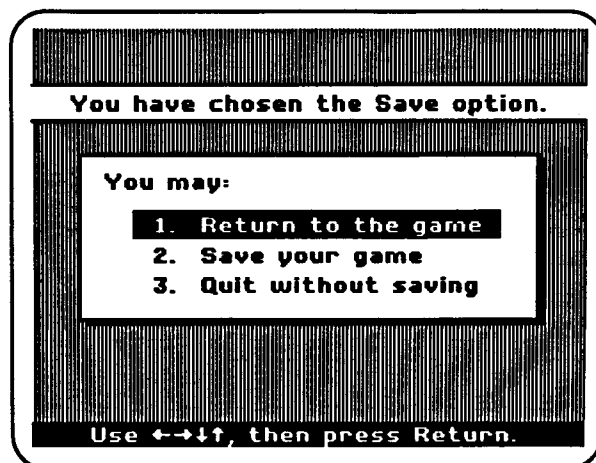
Press the 4 Key to see a current list of what you have accomplished so far. Press the Tab Key to see a list of villages you have visited so far.

ACCOMPLISHMENTS OF Pat Hennesy BEGINNER LEVEL		
<b>DAYS PASSED:</b> 27		<b>DAYS LEFT:</b> 521
	AMOUNT	POINTS
<b>RIVER MAPPED (MILES):</b>	45	45
<b>LAND MAPPED (BLOCKS):</b>	70	70
<b>LANDMARKS MAPPED:</b>	0	0
<b>VILLAGES INTERVIEWED:</b>	1	100
<b>VILLAGES TRADED:</b>	1	100
<b>SPECIES OF PLANTS:</b>	0	0
<b>SPECIES OF ANIMALS:</b>	0	0
<b>REACHED ROCKIES?</b>	NO	0
<b>DAYS LATE:</b>	0	0
<b>TOTAL POINTS = 315</b>		
ESCAPE: TRAVEL SCREEN    TAB: VILLAGES		

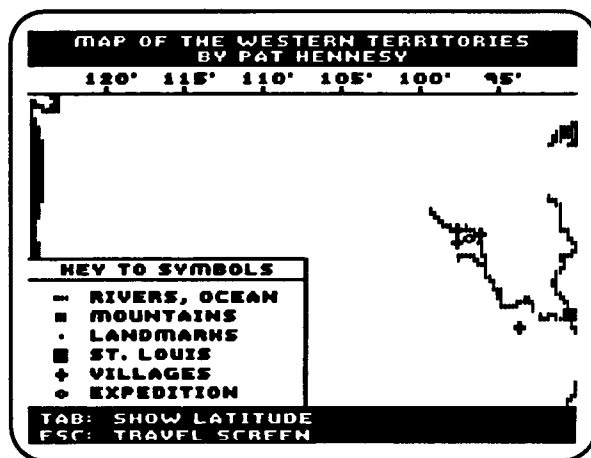
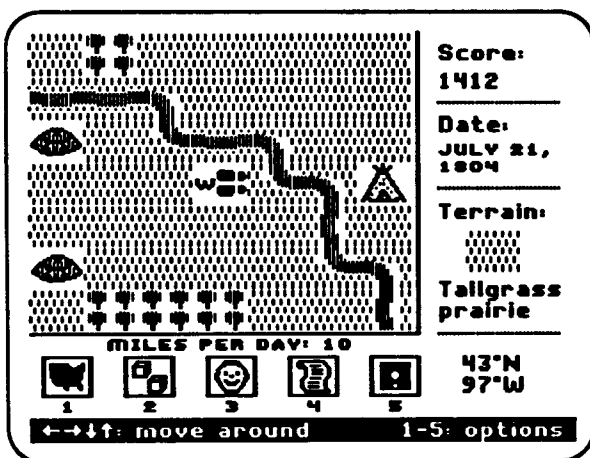
Villages You Have Visited		
NAME OF TRIBE	TRADED	DID AN INTERVIEW
OSAGE	✓	✓
Press SPACE BAR to continue		

## A GUIDED TOUR THROUGH THE PROGRAM (continued)

Return to the Travel Screen and press the 5 Key. This is how you would quit the game or save a game in progress. Before you can save a game, however, you must have previously created a data disk. (This can be done by choosing the option "Create a data disk" from the Main Menu.) Choose the option "Return to the game."

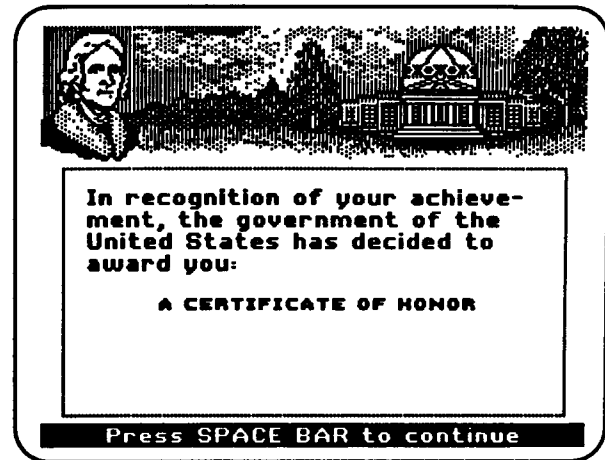
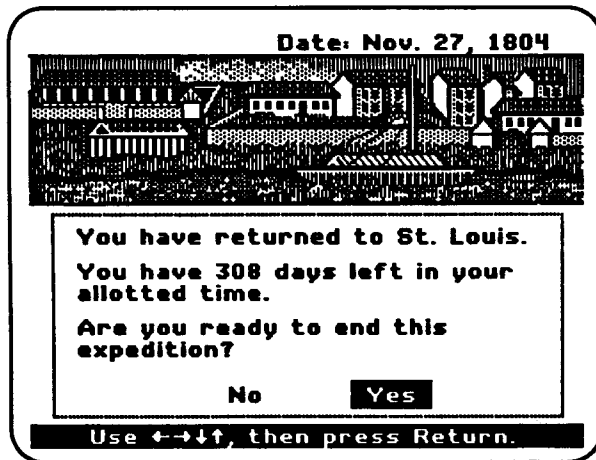


Return to the Travel screen. Travel northward until you find the river again. Follow the river northwestward until you have seen two or three more native villages. (For the purpose of this tour, you need not enter these villages.) Check the overview map again. The stretch of river you have just followed now appears on the map, along with the additional villages.



## A GUIDED TOUR THROUGH THE PROGRAM (continued)

Now head back downriver (to the southeast) until you return to St. Louis. Upon entering the town, you will be asked if you are ready to end the expedition. Answer *Yes*. You will again see Meriwether Lewis, who will have some words for you. Your final list of accomplishments will appear on the screen. Then you will travel to Monticello to see Thomas Jefferson, who will praise you and give you a reward. (Because your expedition was so short, your reward will be small.)



## THE LEVELS OF PLAY

***Lewis and Clark Stayed Home*** has three levels of play: Beginner, Experienced, and Expert. The Beginner level is the fastest and easiest, while the Expert level is the longest and hardest. Several factors differ among the levels:

- the principal goals of the expedition
- the kinds of decisions that must be made before leaving St. Louis
- the people in the expedition roster
- the amount of time you are given before you need to return to St. Louis
- the penalty for arriving late

The following table summarizes these differences:

	<b>Beginner Level</b>	<b>Experienced Level</b>	<b>Expert Level</b>
<b>Principal Goal(s)</b>	Reach Rocky Mts.	Reach Pacific	Reach Pacific Find source of Mississippi Visit Santa Fe
<b>Decisions Before Leaving</b>	None	Assigning tasks	Choosing size of party Assigning tasks
<b>People in Roster</b>	Always the same	Always the same	Different each time
<b>Time Allowed</b>	1-1/2 years	2-1/2 years	3-1/2 years
<b>Actual Play Time</b>	15-30 minutes	20-45 minutes	30-60 minutes
<b>Late Penalty</b>	10 points per day	20 points per day	30 points per day

While the higher levels are longer and more difficult to play, they do provide greater opportunities for obtaining points.

## ANSWERS TO TECHNICAL QUESTIONS

### Using a Data Disk to Save a Game

Students can save their unfinished games on data disks. Only one game will be saved on each data disk, so each student will need a separate data disk.

Data disks must be prepared before they can be used to save games. When preparing a data disk, you may use either a blank disk or a disk that you wish to recycle. (Any pre-existing data on the disk will be erased.) There are two different ways to prepare data disks:

Method 1: From the Main Menu of *Lewis and Clark Stayed Home*, choose the option *Create a data disk*. The on-screen directions will ask you which drive to format.

Method 2: Using any standard ProDOS disk utilities program, format a blank disk, and name it */Lewis*

Once you have created a data disk, you may use it to save a game anytime after leaving St. Louis, but before ending the expedition. You save a game by selecting Option 5 (the disk icon) from the Travel screen and then selecting *Save your game*. The program will tell you if you have successfully saved the game.

Later on, you may resume a saved game by choosing *Resume an old game* from the Main Menu. If the data disk is not in a disk drive, then the program will prompt you to insert it. The program will load the saved data and your game will resume from the point where you last saved it.

You may save games repeatedly on the same data disk. Each time you save a game, the current data will replace the older data.

### Using the Product in a Network Environment

If you have a network license from MECC for this product, you may load the program onto an AppleTalk, Corvus Omninet, DigiCard, or VELAN network. If you are loading from a 5-1/4" disk, you must be sure to load *both* sides of the disk onto the network.

Students may save their games, but only to floppy disks. The same procedures for creating and using data disks that apply to the stand-alone version also apply to the network version. If you plan to use *Lewis and Clark Stayed Home* on a computer without a floppy disk drive, then an unfinished game cannot be saved.

## **PREPARATORY ACTIVITIES**

Students will gain far more from *Lewis and Clark Stayed Home* if they have had some exposure to related concepts and information prior to using the program. Likewise, the computer experience will be far more meaningful if reinforced by follow-up discussions and activities. In other words, rather than using the computer program as a complete, stand-alone lesson in itself, best results are obtained by integrating the computer activity into a larger lesson. In such a context, the computer program can be a powerful learning vehicle, as well as an extraordinary motivator.

The nature of the preparatory and follow-up activities will, of course, be dependent upon the aspects of the program you wish to emphasize (history, native cultures, geography, science, etc.) However, there is no sharp line between what makes a good preparatory activity and what makes a good follow-up activity. Thus, you may wish to refer to the section "Follow-Up Activities" for additional ideas on preparatory activities.

### **American History**

1. Study the section on Lewis and Clark in your textbook or assign related readings. Discuss the reasons for their journey, the amount of time it required, their adventures along the way, and what they accomplished. Determine what route the expedition followed to reach the Pacific Ocean and what routes they used on the return trip.
2. Study the life and presidency of Thomas Jefferson. What were his interests? Did these influence his instructions to Meriwether Lewis? Why did Jefferson arrange the purchase of the Louisiana Territory? Why did France want to sell it?
3. Study the history of the exploration of the Mississippi basin. What other explorers preceded Lewis and Clark in the region? What explorers followed them?

### **Native American Cultures**

4. Study the indigenous culture regions of North America (Woodland, Plains, Southwest, Pacific Northwest, etc.). Identify the distinguishing characteristics of each culture.
5. Pick out several tribes of western North America and discuss the history and culture of these tribes. Alternatively, assign a different tribe to each student or pair of students, and have them research these tribes. They can then present their findings to the class.

### **North American Geography**

6. Using a detailed physical map of North America, study the physical geography of the western United States. Identify the locations and directions of all major rivers. Locate all significant mountain ranges, noting their general height and the trend of their axes. Examine the shape of the Pacific coastline. Look for other noteworthy features, such as large lakes, areas of desert, and so on.

## **PREPARATORY ACTIVITIES (continued)**

7. Characterize each of the western states in terms of its geography. Which states are mountainous, and which are generally flat? If flat, what is the general elevation? Where is the highest point in each state? The lowest? Characterize the amount of rainfall the state receives.

### **Natural Science**

8. Study the vegetation regions, or biomes, of western United States. What species of plants typify each region? Relate these regions to patterns of precipitation and to elevation.
9. What large mammals are native to western North America? Which of these are carnivores, and which are herbivores? Identify the original and current ranges of each of these species. Are any of these species currently endangered?



## SUGGESTED LESSON PLANS

The possible lesson plans for using *Lewis and Clark Stayed Home* in the classroom are as varied as the teachers and students who use the product. The purpose of this section is not to dictate how the product should be used, but to provide some starting points for the creative teacher.

Seven lessons are provided in this section. It is unlikely that you would want to do all the lessons; instead, you might select those lessons that are most appealing or that best meet your needs. Alternatively, you may simply pick out certain ideas that seem especially appropriate. The first three lessons provide general approaches to using the software with your students, while the remaining four lessons illustrate approaches that focus on specific content areas.

It is worth noting that this software can be used in other content areas not mentioned here. For example, it is well suited for language arts, and the lesson plans that follow include many ideas that involve reading and writing. It is even possible to tie some math into a multidisciplinary lesson, computing such things as how many days it will take to travel a certain distance or how long your current food supplies will last.

(By the way, if you develop any creative lesson plans that you would like to share with us, we would be very happy to hear your ideas! Simply write MECC at the address given in the front of this manual.)

### General Lessons:

1. Introduction to the software
- \* 2. The beginning level
- \* 3. The experienced and expert levels

### Content-Specific Lessons:

4. Emphasis on American history
- \* 5. Emphasis on Native Americans
- \* 6. Emphasis on geography
7. Emphasis on natural science

(\*) The starred lessons are designed as cooperative-learning lessons.

## **SUGGESTED LESSON PLANS (continued)**

### **Lesson Plan #1: Introduction to the Software**

*Time Required:* 20 minutes

*Group Size:* Entire class

*Equipment:* One computer, attached to a large display

*Materials:* None

*Rationale:* Many students may benefit from seeing a demonstration of the software before trying it on their own. This will help to clarify a) the objectives of the program and b) what options are available within the program. Students who will most benefit from seeing a demonstration include:

- younger students (grade 6 and below)
- students with poor reading skills
- students who have limited familiarity with computers
- students who are not comfortable with unfamiliar situations

#### *Procedure*

1. Prepare the students in advance of the computer activity through the use of appropriate supporting activities (see the section "Preparatory Activities").
2. Set up the computer system so that all the students can easily see the video display. This may be accomplished with a large-screen monitor, an LCD video palette (used with an overhead projector), or a computer video projector.
3. While projecting the computer screen for your entire class to see, start up the software, explaining the steps you must take to get underway.
  - a) From the Main Menu, select the option "Start a new game."
  - b) Following the instructions on screen, type in an appropriate name for the class and select a character to represent the group. Choose the Beginner level, emphasizing that although there are three difficulty levels, everyone should first play as a Beginner.
  - c) After reading the letter from Jefferson, lead a brief discussion in which the students explain the significance of the letter. Take the option to visit Jefferson, and get all the information from him that you can. Discussion point: What does Jefferson hope to accomplish by authorizing this expedition?
  - d) Take the option to visit Meriwether Lewis. Make sure that the class understands his instructions. Point out that these instructions will be different when you play at the Experienced or Expert levels. Discussion point: How has Lewis refined or modified your instructions from Jefferson?

## **SUGGESTED LESSON PLANS (continued)**

### **Lesson Plan #1: Introduction to the Software (continued)**

4. As soon as the Travel Screen appears (with the footprints), turn much of the decision-making over to the class:
  - a) Have the class come to a consensus as to which direction to go. Take a few steps in the chosen direction. Discussion point: How do you know which way you should go?
  - b) Take a look at the details of the display. Discussion point: What kinds of information are available on the screen? In what ways can this information be useful?
  - c) Continue traveling in whatever direction the class decides. As new objects come into view on the Travel Screen, the class may decide to adjust their direction.
5. Point out the icons for the options (labeled 1-5). Choose the map option. Discussion points: Why is most of the map blank? What does the blue strip along the left edge represent? How about the blue streak near the right edge? Where on the map are we right now? What is our current latitude and longitude?
6. In a similar vein, explore the other options, posing appropriate discussion points.
7. Be sure to visit at least two villages, engaging in trade and conversation with the people in each. Discussion points: In what ways were the two villages similar? In what ways were they different? If you were to visit other villages, what kinds of differences might you encounter?
8. Continue with the group activity long enough for the class to get a good idea of the objectives and the procedures. Then return to St. Louis and discuss the feedback from Lewis and from Jefferson. Discussion points: On your next journey, what could you do differently in order to increase your level of success? What are the criteria for determining success? Which of these criteria are most important?
9. Follow up this activity with another computer activity in which the students work together in small groups. (See Lessons 2-7.)

## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #2: The Beginning Level

**Time Required:** One class period at the computer, lasting approximately 45 minutes

**Group Size:** Pairs of students

**Equipment:** One computer per group

**Materials:** *Worksheet # 1: Record of Discoveries*  
Blank data disk (optional)

**Rationale:** This lesson allows students to explore the Beginning level a) to gain familiarity with both the geography and with the various Native American villages included within the program and b) to begin developing strategies for accomplishing the program's goals.

#### *Procedure*

1. Prepare students in advance of this activity through the use of appropriate supporting activities (see "Preparatory Activities") and/or by providing a whole-class demonstration of the product (see Lesson 1).
2. Divide the class into pairs. Give each pair a copy of *Worksheet #1: Record of Discoveries*. You may also wish to provide a blank or recycled data disk to each pair. This will allow them to save their games should they run out of time. (See "Answers to Technical Questions" for information on data disks).
3. Explain that they have three main goals to accomplish as they use this program:
  - to reach the northern Rocky Mountains
  - to make as many discoveries as possible
  - to return before time runs out

Remind them that they should choose the Beginner level and that they are given a time limit of two summers.

4. Explain that one member of the pair will be the Recorder, recording the discoveries on the worksheet. The other student will be the Operator, working the keyboard. After winter camp, they should trade roles. However, they should make all decisions jointly, discussing their ideas and strategies and giving reasons for taking a certain action.
5. Tell the students that you will go around observing how well they work as a team. Mention that you will pay special attention to whether they are: a) discussing strategies and b) verbalizing a rationale for each action they take.

## **SUGGESTED LESSON PLANS (continued)**

### **Lesson Plan #2: The Beginning Level (continued)**

6. Allow the students to work through the program. Circulate among the teams and observe their work. As you chat with each team, you can provide explanations on issues that puzzle them and you can suggest alternative approaches. As the teams return to St. Louis, remind them to copy the data from the final summary screen onto their worksheets.
7. After they have finished the program, ask each pair to take five minutes to discuss how well they worked together and whether each person listened to the other's ideas. Also provide feedback regarding your own observations of how well the team worked together.
8. Lead a whole-class discussion in which students relate their discoveries, explain their strategies, and evaluate their approaches. See "Follow-Up Discussion Topics" for ideas.

## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #3: The Experienced and Expert Levels

<i>Time Required:</i>	One or two class periods at the computer, lasting approximately 45 minutes each
<i>Group Size:</i>	Groups of three students; ideally each group should be heterogeneous in terms of ability level, gender, ethnic background, etc.
<i>Equipment:</i>	One computer per group
<i>Materials:</i>	<i>Worksheet #2: Checklist of Discoveries</i> <i>Handout #4a: Roles of Team Members</i> Blank data disk
<i>Rationale:</i>	In this lesson, students explore the more advanced levels of the program (the Experienced and Expert levels). These levels present tougher challenges than does the Beginner level. In addition, the longer time limits will allow them to explore farther, reaching areas they may not have reached before. This lesson provides opportunities for students to apply the knowledge they acquired at the Beginning level, to expand the strategies they have already developed, and to plan their journey before launching it.

#### *Procedure*

1. Before the students attempt this lesson, they should already be familiar with the Beginner level. Ideally they should already have made several journeys at the Beginner level, working individually, in pairs, or in small groups.
2. Divide the class into teams of three students each. Give each team a copy of *Worksheet #2: Checklist of Discoveries*. At these higher levels the games may require more time, so each team should be given a blank or recycled data disk for saving their game. (See "Answers to Technical Questions" for information on data disks.)
3. Tell students they will be working in cooperative groups. Explain that, at the Experienced level, the principal goals are:
  - to reach the Pacific Ocean
  - to return within the span of three summers

At the Expert level, there are two additional goals:

- to find the source of the Mississippi River
- to reach Santa Fe

## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #3: The Experienced and Expert Levels (continued)

Furthermore, at the Expert level the time limit is increased to four summers.

4. Have the students recall that at the Beginner level, the expedition had 14 members on the roster, and that each had a specific task. Furthermore, the students were able to reassign these tasks whenever they wished. Explain that at the Experienced level, these 14 members all begin with the task of Pack Crew. Before the expedition can leave St. Louis, other key tasks (Sergeant, Hunter, etc.) will have to be assigned as well. At the Expert level, the size of the roster is not fixed at 14 people. Therefore, the students will first have to decide how many people their expedition should include and then assign the tasks to these people.
5. Distribute a copy of *Handout #4a: Roles of Team Members* to each team. Take a few minutes to explain the nature of each role and clarify any questions students may have about the roles. Suggest that each time winter camp begins, the team members switch roles. Thus, in the course of three summers, all members will be able to experience all three roles. Alternatively you may direct students to keep their roles for the entire journey. Each time they begin a new journey, they should change roles. The roles are:

#### Taskmaster

- assigns the tasks to the members of the party (Sergeant, Hunter, Cook, etc.)
- keeps track of the levels of supplies
- reassigns the tasks of party members based on the changing situation and the changing levels of supplies
- determines what supplies need to be obtained through trade with native villages
- makes sure that everyone in the group contributes ideas and gives a rationale for whatever decisions they make

#### Negotiator

- handles interactions with the native villages: conducts trade, interviews the inhabitants, offers gifts if necessary, and leaves the village when all business is concluded
- checks off discoveries on the worksheet
- praises group members for contributing ideas, asking questions, and actively participating in the discussions

#### Navigator

- plans the route of the expedition before departing from St. Louis
- guides the party across the landscape, pressing the arrow keys to travel along
- periodically checks the overview map
- ensures that everyone agrees whenever decisions need to be made, such as planning the route, reassigning tasks of party members, conducting trade, etc.

## **SUGGESTED LESSON PLANS (continued)**

### **Lesson Plan #3: The Experienced and Expert Levels (continued)**

6. Tell the students that you will go around observing how well they work as a team. You will be paying attention especially to whether they are discussing strategies, explaining the rationale for their actions, and deciding jointly what to do next.
7. Allow the students to work through the program. Circulate among the teams, observing the interactions among team members. Verify that they are discussing various approaches and coming to a consensus before making decisions. As the teams return to St. Louis, remind them to copy the data from the final summary screen onto their worksheets.
8. Before the end of the period, allow 5-10 minutes for the team members to discuss how well they worked together as a group. Ask them to name, for example, two things that helped them work effectively as a group and one thing they need to do better next time. As you speak with each group, you can provide feedback based on the observations you made earlier.
9. Lead a whole-class discussion in which students relate their discoveries, explain their strategies, and evaluate their approaches. See "Follow-Up Discussion Topics" for ideas.



## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #4: Emphasis on American History

- Time Required:** One or two class periods at the computer, lasting approximately 45 minutes each
- Group Size:** Individuals or pairs
- Equipment:** One computer per group
- Materials:** *Handout #3: Route of the Lewis and Clark Expedition*  
Blank data disk (optional)
- Rationale:** This lesson addresses the question of "Where did Lewis and Clark actually travel in the course of their expedition?" The students are asked to duplicate that route while playing the simulation, reliving some of the details of the actual expedition. This provides a much more concrete experience than merely reading about the adventures of Lewis and Clark.

#### Procedure

1. Prepare the students in advance of this activity by having them study the history of the Lewis and Clark expedition. Many good books are available on the subject (see "Bibliography"). Pay special attention to the route that was followed and to which native tribes were visited.
2. Explain to the class that the objective of this lesson is to duplicate as accurately as possible the route of the actual Lewis and Clark Expedition. Provide each team with a copy of *Handout #3: Route of the Lewis and Clark Expedition*.
3. If the students are to keep diaries (see step 5 below), they should be given data disks to save their games. The diary writing will lengthen the amount of time required for this activity, extending it beyond a single class period. (See "Answers to Technical Questions" for information on data disks).
4. Tell the students to select the Experienced (medium) level of play. This level allows the player a total of three summers to reach the Pacific and return. This is the amount of time that the real expedition required.
5. As the students work through the simulation, have them keep diaries of their adventures, just as the real Lewis and Clark did. They should note the current date as the first part of each diary entry. The diaries should reflect everything of note that they did or saw or that happened to them.
6. After the students complete their journeys, have them pair up (if they worked individually) or join into groups of four (if they worked as pairs). They should then compare and contrast their experiences, using their diaries as references.

## **SUGGESTED LESSON PLANS (continued)**

### **Lesson Plan #4: Emphasis on American History (continued)**

7. Lead the class in a discussion that first focuses on what is common in their experiences and then compares their composite experience to what they know about the actual expedition. This can be followed by additional activities that focus on the historical events of the expedition and the time period (see “Follow-Up Activities”).

## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #5: Emphasis on Native Americans

*Time Required:* One or two class periods at the computer, lasting approximately 45 minutes each

*Group Size:* Groups of three students each; ideally each group should be heterogeneous in terms of ability level, gender, ethnic background, etc.

*Equipment:* One computer per group

*Materials:* *Worksheet #3: Empty Map*  
*Worksheet #5: Record of Villages Visited*  
*Handout #1: Data on Selected Native American Nations*  
*Handout #4b: Roles of Team Members*  
Blank data disk (optional)

*Rationale:* The Lewis and Clark Expedition marked a major turning point in the history of Native Americans. Despite claims of ownership by various countries, Native Americans still ruled the lands west of the Mississippi River. (One notable exception was the area of the American Southwest, where Spanish rule dominated the native people). Much of the area had never been explored by people of European descent, and many of the native tribes had never had any contact with Europeans.

After the Lewis and Clark Expedition, change came at a tremendous pace. Explorers, fur trappers, prospectors, farmers, ranchers, and military garrisons quickly invaded the land. Within a matter of decades, the Native Americans of the region were conquered and confined to reservations. Thus, the Lewis and Clark Expedition marks the end of an era in which the native way of life prevailed in the Great Plains, Rocky Mountains, and Pacific coastal regions of North America.

In this lesson, students become more familiar with that traditional way of life and with the various groups that occupied the lands west of the Mississippi. They will do this by traveling through these lands, locating and mapping native villages, and interviewing the inhabitants of each.

#### *Procedure*

1. Prepare the students in advance of this activity through the use of appropriate supporting activities (see "Preparatory Activities") and/or by providing a whole-class demonstration of the product (see Lesson 1). It is helpful if students have already had experience playing the Beginner level.

## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #5: Emphasis on Native Americans (continued)

2. Divide the class into teams of three students each. Give each team a copy of *Worksheet #3: Empty Map*, *Worksheet #5: Record of Villages Visited*, and *Handout #1: Data on Selected Native American Nations*. You may also wish to provide each team with a blank or recycled data disk for saving their game. (See “Answers to Technical Questions” for information on data disks).
3. Tell the students that they will be working in cooperative groups. Explain that their principal goal as a team is to visit as many villages as possible, interviewing the inhabitants of each. Through these interviews, the students will uncover many details about the lives of various native groups.
4. Also explain that each person on the team will have a specific role to perform in support of the group goal. Give each team a copy of the *Handout #4b: Roles of Team Members*. Take a few minutes to explain the nature of each role and to clarify any questions students may have about them.

#### *Guide*

- guides the party across the landscape, pressing the arrow keys to travel, making sure to visit each native village that is discovered
- records on the map the location of each village visited
- studies Handout #1 for information about the village currently being visited
- makes sure that everyone in the group contributes ideas and gives a rationale for whatever decisions they make

#### *Researcher*

- interviews each tribe visited in order to obtain as much information as possible
- points out to the Reporter any information that should be recorded on the worksheet
- praises group members for contributing ideas, asking questions, and actively participating in the discussions

#### *Reporter*

- records the appropriate information on Worksheet #5 as provided by team members
  - ensures that everyone agrees whenever decisions need to be made, such as what direction to travel, and what information to enter on the worksheet
  - reports the group's findings to the entire class
5. Tell the students that you will go around observing how well they work as a team. You will be paying attention especially to whether they are discussing strategies, explaining the rationale for their actions, and deciding jointly what to do next.

## **SUGGESTED LESSON PLANS (continued)**

### **Lesson Plan #5: Emphasis on Native Americans (continued)**

6. The students should choose the Expert level of play in order to have the maximum amount of time (four summers) to find the 30 villages. Allow the students to work through the program. Circulate among the teams, observing the interactions among team members. Verify that each team is functioning smoothly and is properly recording the data. Check that they are discussing various approaches and coming to a consensus before making decisions.
7. As each team completes the journey, have them spend about five minutes discussing how well the group functioned. Have them name two things that helped them work effectively as a group and one thing they should try to do better next time. As you speak with each group, you can provide feedback based on the observations you made earlier.
8. Most teams should have been able to visit most of the villages during the four summers. After all the teams have finished their journeys, have each team determine which villages they missed. Allow the teams to interact to find out the locations of the villages they missed. If time permits, you may wish to allow the students to make a shorter second journey in order to visit these missed villages.
9. Lead a whole-class discussion that focuses on the information the students collected. Start by having the Reporter from each team present the team's findings. Write the information on the blackboard, a transparency, or a large piece of paper for the entire class to see. Then have the students discuss ways in which the various native groups are different or similar. Ask them to hypothesize on reasons for some of the characteristics, such as the types of dwellings, the foods they eat, and their attitude towards the explorers. In particular, have them discuss the ways in which these characteristics are related to the location where each tribe lives.
10. Follow up with additional discussions and activities that explore the history of Native Americans or the lives and status of Native Americans today.

## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #6: Emphasis on Geography

- Time Required:** One or two class periods at the computer, lasting approximately 45 minutes each
- Group Size:** Groups of three students each; ideally each group should be heterogeneous in terms of ability level, gender, ethnic background, etc.
- Equipment:** One computer per group
- Materials:** *Worksheet #4: Outline of Western States*  
*Worksheet #6: Locations of Landmarks*  
Atlas or a detailed map of the western United States  
*Handout #4c: Roles of Team Members*  
Blank data disk (optional)
- Rationale:** Lewis and Clark were the first non-native explorers of a large area of what is now the western United States. Because they were the first, they had no maps to guide them, instead making their own maps as they traveled. During their long journey, they encountered a great diversity of landscapes, with different landforms, climates, geology, vegetation, animals, and native cultures.
- Since that time, the land has been overlaid with a network of political boundaries (states, counties, etc.). These boundaries, along with cities, towns, railroads, highways, and other human additions, provide us with a new set of reference points.
- In this lesson, the students will relate their discoveries to these modern landmarks. By studying modern-day maps, they will connect what they see on the computer screen to the current geography of the United States.

### Procedure

1. Prepare the students in advance of this activity through the use of appropriate supporting activities (see "Preparatory Activities") and/or by providing a whole-class demonstration of the product (see Lesson 1). It is helpful if students have already had experience playing the Beginner level.
2. Divide the class into teams of three students each. Give each team a copy of *Worksheet #4: Outline of Western States* and *Worksheet #6: Locations of Landmarks*. Each team should have access to an atlas or a detailed map of the western United States. Ideally, this map should show physical features (mountains, rivers), political features (boundaries), cities and towns, and latitude and longitude.

You may also wish to provide each team with a blank or recycled data disk for saving their game. (See "Answers to Technical Questions" for information on data disks).

## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #6: Emphasis on Geography (continued)

3. Tell the students that they will be working in cooperative groups at the computer. Explain that their principal goal is to explore as wide an area as possible, relating their discoveries to the modern map. As they complete this activity, they will build their own maps of the western United States. Suggest that they avoid spending much time in the native villages, instead concentrating on completing the two worksheets.
4. Explain that everyone will have a specific role to help the team accomplish its goals. Give each team a copy of *Handout #4c: Roles of Team Members*. Take a few minutes to explain the nature of each role and to clarify any questions students may have about them.

#### *Traveler*

- operates the keyboard, discovering information that can be mapped
- for each landmark that is discovered, records the appropriate information on Worksheet #6
- makes sure that everyone in the group contributes ideas and gives a rationale for whatever decisions they make

#### *Mapper*

- sketches in the discoveries on the outline map: mountains, rivers, landmarks, native villages, etc.
- labels all features on the map: native villages with the name of the tribe and all other features with their modern names
- praises group members for contributing ideas, asking questions, and actively participating in the discussions

#### *Researcher*

- follows the progress of the expedition on the modern map or atlas
  - relates each discovery to nearby features on the modern map, so that the Mapper knows where to plot it and the Traveler knows what to record
  - ensures that everyone agrees whenever decisions need to be made, such as what direction to travel next or where to plot a particular feature on the map
  - reports the group findings to the entire class
5. Tell the students that you will go around observing how well they work as a team. You will be paying attention especially to whether they are discussing strategies, explaining the rationale for their actions, and deciding jointly what to do next.
  6. Tell the students to select the Expert level of play. This will provide the maximum time (four summers) to explore the land. Allow the students to work through the program. Circulate among the teams, observing the interactions among team members. Verify that each team is functioning smoothly and is properly recording the data.

## **SUGGESTED LESSON PLANS (continued)**

### **Lesson Plan #6: Emphasis on Geography (continued)**

7. Most teams should be able to visit most of the territory during one round of the Expert level. If time permits, you may wish to allow the students to make a shorter second journey in order to visit any areas that were missed.
8. As each team completes the assignment, have it spend about five minutes discussing how well the group functioned. Have them name two things that helped them work effectively as a group and one thing they should try to do better next time. As you speak with each group, you can provide feedback based on the observations you made earlier.
9. When all the teams have finished, have them compare their maps. One approach is to post all the maps on the walls around the room. The students can then circulate, in their original teams, clockwise around the room. They should keep an eye open for any details that deviate from their own.
10. Lead a whole-class discussion that focuses on the information the students collected. Find out to what extent they agree on what city is closest to each landmark. This can be followed by additional discussions and activities that explore the modern geography of the western United States or that relate this geography to the actual journey of Lewis and Clark. (See "Follow-Up Discussion Topics" and "Follow-Up Activities.")



## SUGGESTED LESSON PLANS (continued)

### Lesson Plan #7: Emphasis on Natural Science

**Time Required:** One or two class periods at the computer, lasting approximately 45 minutes each

**Group Size:** Groups of three

**Equipment:** One computer per group

**Materials:** *Worksheet #4: Outline of Western States*  
*Worksheet #7: Species Discovered*  
Blank data disk (optional)

**Rationale:** Lewis and Clark passed through a wide variety of vegetation zones, or biomes, in their journey to the Pacific and back. Many of the plants and animals that they collected or described were new to science. Each of these species has a specific range of habitats in which it can be found. As a result, each biome is characterized by a distinct assemblage of plants and animals. For example, the predominant species in the tallgrass prairie differ from the predominant species of the coniferous forest. In this lesson, the students will discover and map the various biomes found in the program and locate the species they discover within these biomes.

#### *Procedure*

1. Prepare the students in advance of this activity through the use of appropriate supporting activities (see "Preparatory Activities") and/or by providing a whole-class demonstration of the product (see Lesson 1). It is helpful if the students have already had experience playing the Beginner level.
2. Divide the class into groups of three. Give each team a copy of *Worksheet #4: Outline of Western States* and *Worksheet #7: Species Discovered*. In addition, you may wish to provide each team with a blank or recycled data disk for saving their game. (See "Answers to Technical Questions" for information on data disks.)
3. Assign roles to the members of the teams. Each team should have the following members:

#### *Explorer*

- operates the computer, traveling around the landscape to reveal the boundaries of the vegetation zones

#### *Artist*

- sketches the ranges of the biomes on the outline map (colored pencils work well for this purpose)
- marks the location on the map where each species was found

## **SUGGESTED LESSON PLANS (continued)**

### **Lesson Plan #7: Emphasis on Natural Science (continued)**

#### *Scribe*

- records each species discovered, along with notations on the current biome, latitude, and longitude. (Note: In this program, the current biome is usually the “terrain” that is listed. For species found in a river, the notation should indicate an aquatic habitat within a certain biome—the biome that surrounds the particular site.)
4. Explain that this lesson has two principal goals: 1) to explore as wide an area as possible, discovering the ranges and boundaries of the various biomes and 2) to discover as many new species as possible, relating their locations to the various biomes. The students should avoid spending too much time in the native villages, instead concentrating on completing the map and the worksheet.
  5. The students should choose the Expert level of play in order to have the maximum amount of time (four summers) to explore the land. After the students begin, you can move from group to group, helping out as necessary. Verify that each team is functioning smoothly and is properly recording the data.
  6. Most teams should be able to visit most of the territory during one round of the Expert level. If time permits, you may wish to allow the students to make a shorter second journey in order to visit the areas that were missed.
  7. When all the teams have finished, have them compare their maps. One approach is to post all the maps on the walls around the room, allowing the students to circulate, in their original teams, clockwise around the room. They should keep an eye open for any details that deviate from their own maps.
  8. Lead a discussion that begins with the information discovered by the students, moving gradually to broader topics (see “Follow-up Discussions”). Follow up by having the students do additional research on the biomes and species of North America. One good place to start is with the list of species found by the students (see “Follow-up Activities”).

## **FOLLOW-UP DISCUSSION TOPICS**

This section includes a wide variety of possible discussion topics that can be used following the computer activity. If your students do more than one session with *Lewis and Clark Stayed Home*, you may want to lead a discussion after each session. The ideas and information that your students pick up may assist them in the subsequent sessions.

As you look over the discussion topics, you will notice that they are grouped into three stages. A good follow-up discussion often moves through these stages. The first stage represents a concrete review of what the students have discovered. The second stage represents a greater level of abstraction as the students analyze the information. The third stage is the most abstract as students draw upon their analyses to reach new conclusions.

### **Stage 1: Review of Discoveries and Strategies**

1. How many native villages did you find? Which ones were you not able to find? What are some of the villages you remember the best? Why do you remember them?
2. How many species of plants and animals did you find? Which ones do you remember the best? Where did you find these species?
3. What landmarks did you find? Where did you find them?
4. Were you able to accomplish your principal goal(s) and return on time? What strategies or techniques helped you accomplish this?
5. Did your expedition come to an untimely end (through starvation or desertion) in any of your attempts? What did you do differently the next time in order to avoid this problem?
6. What route did you follow to reach the Pacific Ocean? Did you return by the same route? Would you recommend this route to other people?
7. On a long journey, what did you do to keep from running out of food? What did you do when a native village refused to talk or trade with you?
8. How well did it work to have a specific role assigned to each member of your team? Was everyone in your team able to make a contribution? Were you able to accomplish more or to discover more details through this approach?
9. If you were to go back and make one more journey now, what would you do differently than before?

### **Stage 2: Analyzing the Information and Making Comparisons**

1. Which native villages seemed most alike? Why? Which villages seemed most different from the others? Why?

## **FOLLOW-UP DISCUSSION TOPICS (continued)**

2. Why were some villages friendly, while others were not?
3. What rivers did you follow in the course of your expedition? How do you know what rivers they are? What directions do they flow? Why?
4. Which areas explored by your expedition seemed the driest? Which areas seemed the wettest? How can you tell which areas are the driest and which are the wettest?
5. Where did you find forests? prairies? mountains? deserts? What relationship did you find between the terrain and the kinds of plants and animals that you found?
6. Among the villages you visited, you probably encountered a wide variety of life styles. In what ways do some of these differences reflect adaptations to local geographic conditions?
7. Did some tribes seem more affluent than other tribes? Which tribes seemed most or least affluent? What factors affected relative affluence? How do you define affluence for a society that does not use money?

### **Stage 3: Synthesizing New Information and Evaluating the Activity**

1. If you really had led an expedition in place of Lewis and Clark, how might it have affected history?
2. Your expedition served as the official representative of the U.S. Government in your interactions with native villages. Many of these tribes had never encountered white men before. In what ways might your expedition affect relationships between Native Americans and Anglo-Americans in the ensuing decades?
3. Jefferson had hoped that your expedition would discover a practical water route across the continent. This would allow the shipment of goods between the Pacific Ocean and ports on the Mississippi River system. Does such a water route exist? What impediments, if any, are there to such a route?
4. In what ways has the American West changed since the days of the Lewis and Clark Expedition? If you were to lead an expedition today that followed the route of the expedition, what differences would you encounter? In what ways would it be impossible to duplicate the exact journey of Lewis and Clark?
5. The concepts of nobility and honor are quite intangible, yet in many societies these traits are highly valued. What evidence of nobility and honor did you find among the villages you visited? Did your expedition exhibit nobility and honor in its dealings with the villages? Are the definitions of nobility and honor universal, or do they differ from society to society?

## **FOLLOW-UP DISCUSSION TOPICS (continued)**

6. If you had actually led such an expedition in 1804, what would you do after returning to the East? How would you disseminate the information that you had gathered? What career would you pursue after that?
7. Many aspects of daily life for members of the expedition were ignored in this simulation. What are some of these aspects? Could any of these aspects have had a significant impact on the outcome of such an expedition?
8. What were the biggest surprises for you in this simulation? Why were you surprised? Did any of the things that surprised you seem unbelievable? If so, why? If not, do you believe them now?
9. If you could change any aspect or detail of the simulation, what would you change? Why?
10. In what ways did this simulation deviate from reality? Is the simulation simpler or more complex than reality? In what ways are the differences between the simulation and reality good, and in what ways are they bad? Why?

## **FOLLOW-UP ACTIVITIES**

One or more good follow-up activities is an excellent way to complete the unit you are teaching. This can provide several benefits:

- By re-teaching some of the same concepts using a different approach and a different medium, you strongly reinforce the essential elements of the material you are presenting.
- The follow-up activity allows you to extend and build upon the concepts learned in the computer activity.
- The computer activity is a great motivator, sparking the students' interest in related topics. The follow-up activities can take advantage of this motivation.
- The follow-up provides a wonderful opportunity for students to pursue independent projects that relate to the theme of the unit.

The following is just a sampling of the many possible follow-up activities that could be done. Perhaps this list may provide inspiration for your own ideas. (Note: The activities are written as if you had divided the class into small teams, and each team is allowed to pick one activity.)

1. Create a large wall map showing the actual route of the Lewis and Clark expedition, along with locations of the villages they visited and where they set up winter camps. (See "Bibliography" for several possible resources.)
2. Write and present a short play depicting a possible dialog between the Lewis and Clark expedition and one of the villages in the computer program. The village does not have to be one that the expedition actually visited.
3. Create a relief map of the western United States out of clay. If it is oil-based clay, use different colors of clay to represent the different vegetation zones. If it is water-based clay, after the clay has hardened, paint it to show the vegetation zones.
4. The Lewis and Clark expedition began in 1803, with the departure of Lewis's keelboat from Pittsburgh, and ended in 1806. Create a timeline showing historical and scientific events in the United States and the world during this same period of time.
5. Research what life was like in the United States around 1804, the year that the expedition departed from St. Louis. Put together a small newspaper, with articles on different topics relevant to the times. Some topics may be local, national, or international news, while other topics may deal with ordinary daily life (fashion, gardening hints, or whatever). Be sure to include an article about the departure of the expedition.

## **FOLLOW-UP ACTIVITIES (continued)**

6. Lewis and Clark must have felt many emotions upon returning to “civilization” at the end of their historic journey. They had been away from friends, family, and country for a very long time. They had been cut off from all news for two and a half years. Yet they were certainly aware of the importance of what they had accomplished. Pretend that you are either Lewis or Clark. Describe your feelings upon returning to St. Louis, using one of the following formats:
  - a) a long letter to a close friend back East
  - b) a monologue that can be performed in front of the class
  - c) an interview between yourself and a newspaper reporter in St. Louis
7. When Congress debated in 1803 whether or not to fund the expedition, the Louisiana territory still belonged to France, and France had not yet offered to sell it. Some Congressmen were opposed to the plan. Stage a debate in which some students take the roles of Congressmen in favor of the plan, while others take the roles of Congressmen who are opposed. Be sure to research the appropriate background information before staging the debate.
8. Create a profile (a miniature almanac) of the United States at the time of the expedition. Address such questions as: What was the national population? Which state had the most people? What were the largest cities? What was the average income? What were the leading causes of death? In what occupations were most people engaged? How did the states differ from one another in their various statistics? And so on.
9. Create a report on one of the following topics:
  - the lives and careers of Lewis and Clark after the expedition
  - the life of Thomas Jefferson
  - similarities and differences between the route of the Lewis and Clark expedition and the Oregon Trail
  - the relationship between the United States and the various great European powers between 1800 and 1810
  - the role of Sacajawea in the Lewis and Clark expedition
  - the role of George Drouillard in the Lewis and Clark expedition
  - the relationship between the western tribes and Anglo-Americans during the 30 years following the Lewis and Clark expedition

## **HISTORICAL BACKGROUND**

The purpose of this section is two-fold: 1) to provide historical background information that helps to establish the setting for the simulation and 2) to relate key historical details to aspects of the design of the program.

### **Origins of the Expedition**

When President Thomas Jefferson began planning what became the Lewis and Clark Expedition, the Louisiana Territory did not even belong to the United States. The territory belonged to France, which had recently re-acquired it from Spain. Hence, the original planning was done in secret. But before the expedition could get underway, Napoleon unexpectedly offered to sell the entire territory to the U.S. The deal was quickly completed, and the expedition was able to proceed openly. However, the start of the expedition was delayed in St. Louis by the Spanish consul, who had not yet received official word of the sale.

Most of the lands of the Louisiana Purchase, as well as the lands farther west, were unexplored at the time, unknown to everyone except the native inhabitants. Lewis and Clark were the first people of European descent to explore and map the area. Therefore, as you begin the simulation, your map of the area is blank, showing only the Pacific Coast and the Mississippi River. As with Lewis and Clark, your explorations will fill in the map.

### **Boundaries with Spanish and British Territories**

The boundaries of the Louisiana Purchase were, for the most part, poorly defined. This is not too surprising, considering that much of the boundary land had never been explored. In theory, the territory consisted of the entire drainage of the Mississippi River, lying west of the Mississippi. However, the Spanish also had claims in the extreme southwest portion of the drainage, and the British had been engaged in trade in the extreme northern portion. It was some years before exact boundaries were negotiated with Spain and Great Britain.

To the west, the land later known as the Oregon territory still had no firm claims. The British had made several tentative explorations of the coast, but an American captain had explored the mouth of the Columbia River. The Lewis and Clark expedition was essential to establishing a credible American claim to the area. The boundary between the Oregon territory and Spanish America was later set at 42° N. latitude, which today serves as the southern boundaries of Oregon and Idaho. The boundary between the U.S. and British Canada, west of Lake of the Woods, was set at 49° N.

In the simulation, you are allowed to explore within an L-shaped area that roughly corresponds to the Louisiana Purchase and the Oregon territory. On the east, you are bounded by a line drawn just east of St. Louis. To the north you can travel within sight of 49° (but not actually reach 49°). The western limit takes you just far enough inside Spanish territory to visit Santa Fe and see the southern Rocky Mountains. The southern limit, east of the Rockies, is arbitrarily set at 35°, which today serves (approximately) as the southern boundary of Tennessee. The southern limit west of the Rockies is the aforementioned 42° N. latitude.



## HISTORICAL BACKGROUND (continued)

At the time of the expedition, the only significant European-style towns within this entire L-shaped territory were the towns of St. Louis (mostly French speakers) and Santa Fe (a Spanish town). Both of these towns are represented in the simulation.

### Jefferson's Instructions to Lewis

Prior to the Lewis and Clark Expedition, Meriwether Lewis served as the personal secretary to President Thomas Jefferson. Thus, Lewis was involved in the planning of the expedition from a very early stage, even while the expedition was still being kept a secret. Nevertheless, it was Jefferson who set the agenda of what the expedition should accomplish. This agenda was laid down in a detailed set of instructions given to Lewis in June 1803. Excerpts from these instructions include:

- "The object of your mission is to explore the Missouri river, & such principal streams of it, as, by it's [sic] course & communication with the waters of the Pacific Ocean, may offer the most direct & practicable water communication across this continent, for the purposes of commerce."
- "The commerce which may be carried on with the people inhabiting the line you will pursue, renders a knowledge of these people important. You will therefore endeavor to make yourself acquainted, as far as a diligent pursuit of your journey shall admit,
  - with the names of the nations & their numbers;
  - the extent & limits of their possessions;
  - their relations with other tribes or nations;
  - their language, traditions, monuments;
  - their ordinary occupations in agriculture, fishing, hunting, war, arts, & the implements for these;
  - their food, clothing and domestic accommodations;
  - the diseases prevalent among them, & the remedies they use;
  - moral & physical circumstances which distinguish them from the tribes we know;
  - peculiarities in their laws, customs & dispositions; and
  - articles of commerce they may need or furnish, & to what extent."
- "Other objects worthy of notice will be
  - the soil & face of the country, it's [sic] growth & vegetable productions; especially those not of the U.S.;
  - the animals of the country generally, & especially those not known in the U.S.;
  - the remains and accounts of any which may be deemed rare or extinct;
  - the mineral productions of every kind; but more particularly metals, limestone, pit coal & saltpetre; salines & mineral waters, noting the temperature of the last, & such circumstances as may indicate their character;
  - volcanic appearances;
  - climate as characterized by the thermometer, by the proportion of rainy, cloudy & clear days, by lightening, hail, snow, ice, by the access & recess of frost, by the winds prevailing at different seasons, the dates at which particular plants put forth or lose their flowers, or leaf, times of appearance of particular birds, reptiles or insects."

## **HISTORICAL BACKGROUND (continued)**

- “In all your intercourse with the natives treat them in the most friendly & conciliatory manner which their own conduct will admit; allay all jealousies as to the object of your journey; satisfy them of it's [sic] innocence, make them acquainted with the position, extent, character, peaceable & commercial dispositions of the U.S. of our wish to be neighborly, friendly & useful to them, & our dispositions to a commercial intercourse with them.”

Jefferson included many other points in his instructions, such as carefully mapping the Missouri River, inquiring about the land and rivers along the margins of the new territory, investigating the possibilities of fur trade along their route, and making several copies of all notes.

In the simulation, Jefferson's instructions to the player are greatly shortened and simplified. Yet the simulation remains faithful to the key goals of Jefferson's instructions, and the scoring system reflects those goals.

### **The Starting Point of the Expedition**

The westward journey of Meriwether Lewis began in Washington, D.C., in 1803. He traveled overland to Pittsburgh, a frontier town on the Ohio River, where a keelboat he had commissioned for the expedition was being built. He loaded up with supplies and took the keelboat down the river to the Mississippi. From there he went upstream to the mouth of the Missouri River, and from there upstream to the vicinity of St. Louis. Somewhere along this route Clark, who had previously agreed to join the expedition, caught up with the group. The party spent the winter in camp near St. Louis, training, obtaining additional supplies, and gathering information. The expedition actually began in May 1804, with its departure from St. Charles, a tiny community just upstream from St. Louis.

Likewise, the simulation also begins with your departure from St. Louis, about six weeks earlier than the actual expedition, which had been unexpectedly held up.

### **Choosing the Members of the Expedition**

The original plans for the expedition called for a force of ten to twelve men. By the time the expedition actually got under way, it included well over 40 men. However, some of these men were intended only to travel as far as the Mandan villages, then return with the notes and artifacts collected so far. The permanent party—that which crossed the Rocky Mountains, reached the Pacific Ocean, and returned—consisted of just over 30 people.

Lewis recruited his old friend William Clark by mail, before the expedition began. He recruited the others in river settlements and military posts along the frontier as he traveled from Pittsburgh to St. Louis in the keelboat. Because this was a military expedition, all volunteers who were not already soldiers had to join the U.S. Army. The two civilian exceptions were George Drouillard, a French-speaking interpreter hired in St. Louis, and York, Clark's slave. Three other civilians were added to the expedition, one year later, in the Mandan villages: Charbonneau, another French-speaker, the now-famous Sacajawea (wife of Charbonneau), and their infant son.

## **HISTORICAL BACKGROUND (continued)**

In the simulation, you travel with a smaller party. The main reason for this change is to make the list of names and the assignment of tasks more manageable. However, the names in the simulation are all people who actually participated in the expedition. The profiles and lists of skills of these people are, for the most part, accurate as well. Note that only those people who had been recruited prior to leaving St. Louis are included in the program.

### **Methods of Transportation**

The Lewis and Clark expedition spent its entire first season traveling up the Missouri River to the Mandan and Hidatsa villages. This leg of the journey was made using Lewis's keelboat, accompanied by two pirogues, which were huge dugout canoes, heavier and less maneuverable than ordinary ones. Each pirogue had a small sail which could be lifted as well.

After winter with the Mandans, the keelboat went back downstream, while the expedition continued upstream with the pirogues. Along the way, as waterfalls were encountered, these canoes were cached for the return trip. (That is, they were buried, and the sites noted.) Above the Great Falls (in Montana), the expedition tried out Lewis's collapsible metal boat, but it sank. So they built a dugout canoe. When they could go no farther by water, they bought horses from the Shoshonis and packed their equipment across the Rockies. Upon reaching a navigable part of the Snake River, not a great distance from the Columbia, they left their horses in the care of the Nez Perce and rafted down the river to the Pacific Ocean, shooting through several hazardous rapids. The expedition wintered near the mouth of the Columbia.

They began their trip back up the Columbia by pulling their rafts and canoes upstream. They recovered their horses from the Nez Perce and, splitting into several smaller parties, crossed the Rockies again. The pirogues were recovered, but most of the horses were taken by the Crow. The various smaller parties rejoined and completed the trip in the pirogues.

To simplify the program, the entire simulation uses the mode of transport that the expedition used to cross the Rocky Mountains in both directions; that is, on foot, using horses as pack animals. Consequently, the most rapid speed is accomplished when you have an adequate number of animals for the amount of equipment and supplies, plus a large enough pack crew to handle all the loaded animals.

### **Time and Distance**

Prior to beginning their journey, Lewis and Clark carefully estimated the distance they would have to travel and the amount of time it would require. However, they underestimated the distance to the Pacific Ocean and the difficulty of the journey. Therefore, although they expected to complete the journey in two seasons, it actually took them three seasons.

In the simulation, it also takes about three seasons to reach the Pacific and return. Hence, at the Experienced level you are given the three seasons you need to accomplish this goal. But at the Beginner level, with its more modest goals, you are only allowed two seasons. At the Expert level, the additional goals you are assigned often require a total of four seasons, which is how much time you are allowed.

## HISTORICAL BACKGROUND (continued)

The "travel screen" upon which you travel in the simulation consists of a 7x7 array of symbols. Each symbol represents either a landmark, a stretch of river, or a particular type of terrain. The width of each symbol is 1/4 of a degree of longitude, while the height of each symbol is 1/5 of a degree of latitude. The result is that each symbol covers an area that is roughly square, and approximately 15 miles across. For the purpose of computing your progress, the simulation assumes that each square is *exactly* 15 miles across. Thus, if you are traveling at the rate of 15 miles per day, it will cost you exactly one day each time you press an arrow key. At 5 miles per day, each press of the arrow keys will cost you exactly three days. At 10 miles per day, each press will cost you an average of 1.5 days.

It is worth noting that, in the real world, degrees of latitude have a constant spacing while degrees of longitude are spaced more closely as you approach the poles of the earth. For the sake of simplicity, the program ignores this fact, using a constant value of 15 miles for 1/4 of a degree of longitude.

### Equipment and Supplies

Lewis and Clark left St. Louis with an incredible quantity of equipment and supplies. They even brought their writing desks with them. The keelboat and the pirogues were fully loaded, and the large size of the expedition was necessary in order to haul these heavy boats upstream.

As the expedition traveled westward, supplies were used up, and gifts were given or traded to the native people, somewhat lightening the load. However, partially off-setting this was a constant increase in the materials they had collected to bring back home. To lighten their load along the way, the expedition cached certain supplies and some artifacts they had collected, digging them up on the way home. Water seepage into the caches spoiled some supplies and artifacts, but others remained usable.

The simulation does not attempt to incorporate all of the equipment and supplies that the expedition carried but, instead, to present some of the most important or representative items. Below is a brief explanation of a few of these items:

- Flour** - includes not only wheat flour, but also corn meal, or any other starchy flour or meal obtained from the natives
- Meat** - initially includes preserved beef and pork; later includes dried or fresh game meat collected by the hunters in the party, along with dried fish or meat obtained in trade from the natives
- Produce** - initially consists mostly of dried beans; later includes any fresh or dried fruits and vegetables obtained from the natives
- Blankets** - initially consists of wool or cotton blankets manufactured back east; later includes buffalo robes obtained in trade from the natives
- Hides** - accumulate in proportion to the amount of game shot; meanwhile, starting six months after leaving St. Louis, decrease in proportion to the number of men in the party (as the hides are made into clothing)

## **GEOGRAPHY AND NATURAL HISTORY**

The purpose of this section is to provide background information on the geography and natural history of the western United States and to explain how these facts relate to the design of the simulation.

### **Geography of Western North America**

The landscape through which Lewis and Clark passed was amazingly varied. The topography, geology, climate, vegetation, and native cultures all changed dramatically along the route. The simulation employs a variety of techniques to convey some of this dramatic diversity.

The principal way in which the program suggests the diversity of landscape is via the "terrain" symbols on the "travel screen." These symbols are based on the potential natural vegetation of each of 8000 sites and are carefully researched. And while these symbols primarily reflect vegetation zones, they also strongly suggest the underlying topography. The woodlands (hardwood, conifer, or mixed) and prairies (shortgrass or tallgrass) tend to be areas of lower altitude, often fairly flat. The arid lands (shrubsteppe and desert) are more rugged, but likewise are found at lower altitudes. The mountainous areas are represented by the following altitudinal gradations:

<b>Elevation Zone</b>	<b>Meaning</b>	<b>Symbol</b>	<b>Passable?</b>
Alpine	Above tree line	Highest peaks; no trees	No
Subalpine	Just below tree line	High peaks; bluish trees	No
Montane	Mountain forests	Medium peaks; green trees	Yes
Foothill scrub	Dry foothills	Low peaks; scrub	Yes

The column labeled "Passable?" refers to whether the simulation allows you to pass through this zone. In the real world, the determination of whether an area is passable is somewhat more complex, but this makes a very good approximation.

Vegetation zones not only suggest elevation, they also suggest climate. The areas with the greatest rainfall support forests, while the areas with the least are shrubsteppe and desert. Prairies are intermediate, but the tallgrass prairie receives more rainfall than the shortgrass prairie. Savannas are intermediate between prairie and woodland. In the eastern forests, the northern conifers are colder than the hardwood forests, which in turn are colder than the southern conifer and mixed forests.

Another good clue to the local geography comes when you visit a native village. For each village there is a large picture that suggests both the local topography and the vegetation. Sometimes some of the native animals are also represented. These clues strongly reinforce the clues provided by the travel screen.

## **GEOGRAPHY AND NATURAL HISTORY (continued)**

When you visit the native villages, you also have a chance to engage the local people in dialogue. Many of these dialogues provide additional information about local conditions. The most obvious example is the question, "Tell us about this land." But asking about their foods or the things they make will reflect the availability of local materials. (For a discussion of the variety of native cultures, see the next section, "Native Americans of the Area.")

Landmarks too can provide geographic hints. Some of these landmarks suggest geological forces (volcanic peaks, lava fields, geysers), while others suggest topographic anomalies (isolated hills, unusually shaped outcrops, etc.) that make good landmarks.

### **Native Plants and Animals**

Lewis and Clark encountered a large number of plants and animals that at the time were unknown to science. They collected examples of many of the new plants they found and saved skins of the new animals they shot. Unfortunately, most of their skins were somehow lost, never making it back to the East. But their plant collection arrived mostly intact and remains intact, to this day, at the Lewis and Clark Herbarium of the Academy of Natural Sciences in Philadelphia.

The 15 plant and 15 animal species that you can find during the simulation were all unknown to science at the time of the Lewis and Clark expedition. Lewis and Clark encountered all 30 species, collecting or writing about each of them. In the program, each species can be found within its natural range, in an appropriate habitat. However, its location in the program is not necessarily the same place where Lewis and Clark found it. Nor does its location represent the actual location of the entire range of the species. Instead, each species in the simulation can be found in a small area about 200 miles across. The locations of the 30 species were carefully chosen to be distributed across the entire territory that you can explore, with the exception of the eastern fringes.

## NATIVE AMERICANS OF THE AREA

This section provides an overview of the various native people that lived within the territory covered by *Lewis and Clark Stayed Home*. It also explains some of the design aspects of the program as it relates to these groups.

Thirty different villages can be visited in the simulation, and each village represents a different tribe. (See *Handout #1: Data on Selected Native American Nations*.) However, as many as 60 tribes actually lived within the area covered by the program. For various reasons, it was not practical to include every one of these tribes. Most of the tribes not included lived on or near the Pacific Coast. For example, more than a dozen tribes lived near the shores of Puget Sound in 1800, yet in the program you can only visit the Nisqualli. However, the Nisqualli are representative of the culture of the region, and most of the nearby tribes were very closely related to the Nisqualli.

Each village in the program can be found within the actual range of that tribe in 1800. It should be noted that the home ranges of many tribes were rather dynamic. In other words, quite a few had moved from one location to another in the previous century, and many continued to move during the next 50 years. For example, at the time of the Lewis and Clark expedition, the Cheyenne occupied the Black Hills of South Dakota. A century earlier they were farther east, and 50 years later they were farther west.

The boundaries between the various culture regions of Native Americans are closely correlated to the available resources and, therefore, to geography and vegetation zones. In fact, many of the Plains tribes had been Woodland tribes only a century or two earlier, but had adopted the Plains culture when they moved onto the Plains. Because the Great Plains occupy the largest area of the territory covered by the program, the Plains tribes are the most numerous in the program. Only one tribe represents the Woodland culture (the Ojibwe), and one village represents the Southwestern culture (a Pueblo village). Several tribes represent the Plateau & Basin culture, and several the Pacific Northwest culture.

The dialogs and the illustrations of each village are based on careful research of the various tribes and are meant to reflect accurately their cultures, attitudes, and general conditions as of 1804. Thus, the program attempts to present a cultural snapshot from a particular time period. The illustrations, for example, show typical clothing and housing, while the dialogs cover such areas as foods and current enemies. It should be noted that these aspects of material culture, like the home ranges, can be quite dynamic, changing rapidly over the course of several generations. Such changes most often result when nearby populations (either native or non-native) introduce new techniques or technology. However, this is not too surprising when we consider that European cultures also change rapidly when exposed to new technology. On the other hand, aspects of culture relating to spiritual or philosophical values are often more stable and may endure even when the material culture changes.

## **NATIVE AMERICANS OF THE AREA (continued)**

### **Previous Contact**

Prior to the Lewis and Clark expedition, some of the tribes within the Louisiana Purchase and the Oregon Territory had previous contact with people of European descent. For example, traders from St. Louis had occasionally ventured up the Missouri River as far as the Mandan villages (in what is now North Dakota), and traders from Canada had also visited the Mandan. In the course of such trade, many of the tribes in the immediate vicinity had also met the traders. By the time of Lewis and Clark, several of the tribes closest to St. Louis had already been decimated by smallpox and other European diseases. In the Southwest, the Spanish controlled the areas where the Pueblo tribes lived. In fact, there had been several bloody rebellions as the Pueblo tribes attempted to shake off Spanish domination. On the Pacific coast, several tribes had been visited by traders who arrived in sailing ships.

On the other hand, the vast core of the territory was filled with tribes that had little or no direct contact with Europeans. Nevertheless, because of the extensive trading network between the tribes, many of these tribes had acquired a few items of European origin. By far the most important of these items was the horse. In fact, the horse had become essential to the Plains way of life. Imagine the difficulty of a buffalo hunt without the use of horses!

### **Attitudes Toward the Explorers**

The tribes encountered by Lewis and Clark demonstrated a wide variety of attitudes toward the explorers. These differing attitudes were a product of vastly different backgrounds, including such factors as: 1) the amount and nature of any previous contact with Europeans, 2) the relative strength of the tribe, 3) the relationship between the tribe and neighboring tribes, 4) their perception of the most probable reason for the intrusion, and 5) their perception of whether the visitors represented a threat, an opportunity, or neither.

For example, the very first tribes encountered by Lewis and Clark had long been trading with suppliers from St. Louis. Even though their tribes were weak, they felt no threat from the explorers and saw an opportunity for trade. Likewise, the Osage, a strong tribe near St. Louis, had a long and close relationship with the French. They, too, saw an opportunity rather than a threat. On the other hand, the Lakota (Teton Sioux) saw the expedition as an economic threat. The Lakota controlled the trade on the lower Missouri River, and they had a strong interest in continuing their domination of the area. But the tribes on the river that had suffered under Lakota domination saw the explorers as potential allies.

In the Plateau culture region, the Northern Shoshoni were very weak, suffering devastating attacks by their neighbors from the Plains. They had never met any white people before and, for good reason, were extremely skittish about the strange people approaching from the East. They feared another attack! By contrast, the Nez Perce, a strong tribe also resident in the Plateau region, welcomed the explorers without fear.



## **NATIVE AMERICANS OF THE AREA (continued)**

This variety of attitudes is simulated in the program. Each tribe you visit exhibits the attitude that tribe would have most likely had if they had been unexpectedly visited by a sizeable party of European explorers. If, for whatever good reason, the tribe is not predisposed to be friendly, you will then have to make a concerted effort to win their trust before you can interview them. Your interview may ultimately reveal the reasons for their initial reluctance.

It should be noted that, in the actual Lewis and Clark expedition, initial meetings with the various tribes were often conducted at some distance from the villages. Consider how threatening it would have seemed if a party of armed strangers marched into the center of your village!

### **Economies of the Various Tribes**

Not surprisingly, for most native tribes the principal economic activity was the securing of adequate foodstocks. The various tribes in the simulation utilized several different approaches to this problem. Several tribes were mainly agricultural, growing most of the food they needed. Others were hunting tribes, depending upon buffalo or other game. On the Pacific Coast, and to a lesser extent in the Plateau region, many tribes obtained most of their food by fishing. And a few tribes made their living principally by gathering wild plant materials, such as roots, nuts, and fruits.

After food production, trade was the most important economic activity. Virtually every tribe or village engaged in trade with its neighbors. Some tribes, such as the Chinook (on the Pacific coast) and the Mandan (in the northern plains) became specialists in trade, establishing major regional trading centers. Villages with excess corn traded corn, while tribes with excess meat traded meat. Many non-food commodities, such as horses, buffalo hides, pipestone, and shells, were also traded. Some tribes excelled at the manufacture of certain types of goods, such as pottery, textiles, tools, weapons, or jewelry, and these goods also entered into trade.

The possession of any major economic resource was, of course, something to defend against enemies. Such resources might be rich hunting or fishing grounds, major trade routes, important mines, etc. The tribes that possessed these resources were generally wealthy, and the principal consequence of wealth was having adequate food throughout the year for the entire tribe. By contrast, in a poor tribe, the people would often go hungry.

In the simulation, many references are made to the economies of the various tribes you encounter. Most of the references are contained in the dialogs you conduct with the villages. However, the illustration depicting each village usually indicates the basis of the local economy as well.

## NATIVE AMERICANS OF THE AREA (continued)

### The Names of the Tribes

The names of the various Native American tribes can be very confusing. There are several reasons for this confusion:

- Several different names may be synonyms for the same tribe.
- Certain familiar names may actually refer to subgroups within larger tribes.
- Other familiar names may refer to confederacies that include several distinct tribes.
- A single name may sometimes be applied to more than one tribe or group.
- In some areas, the native people were not organized into tribes at all. Instead, each village was a distinct entity.

The names we commonly use for the various tribes are seldom the names that the native people called themselves. Instead, we have typically borrowed the names that early French or English traders, or Spanish missionaries or conquerors, called the tribes. These names, in turn, are often borrowed from the words used by various tribes to describe their neighbors. For example, the name *Sioux* came to us from the French traders. The name is a corruption of the Ojibwe word *Nadowe-is-iw*, meaning snake or enemy, and referred to their neighbors the Dakota, Nakota, and Lakota.

The Sioux are in fact a prime example of the confusion of names. (You may find it very helpful to refer to *Handout #1: Data on Selected Native American Nations*, while reading this discussion.) The Sioux are not a single tribe, but a confederacy of allied tribes. These tribes all speak dialects of a single language, indicating that they are closely related to one another. The three dialects are Lakota, Nakota, and Dakota. Each of these words means “allies” in the three respective dialects. Any tribe which is part of the Sioux alliance is often called by one of these three names, according to the dialect spoken. However, the name Dakota is sometimes applied to the entire Sioux alliance. Furthermore, the Assiniboin tribe also speaks Nakota, but is not part of the alliance, and hence is not considered to be Sioux.

To add to the confusion, the Lakota, Nakota, and Dakota each consist of several distinct subtribes. The Lakota, or Teton Sioux, are divided into seven subtribes (Oglala, Brule, Two Kettle, Hunkpapa, Sihasapa, Sans Arc, and Miniconjou), the Nakota into two (Yankton and Yanktonai), and the Dakota into four (Mdewakanton, Wahpekute, Sisseton, and Wahpeton). Thus a member of the Oglala subtribe might say, “I am a Lakota.” But he might also say, “I am an Oglala Sioux.”

Another grouping that causes some confusion is the Blackfoot confederacy. It consisted of three major tribes, the Blackfoot, the Blood, and the Piegan. Thus a person who belongs any of the three tribes might be called a Blackfoot, even if not a member of the Blackfoot tribe. And to really confuse the issue, the Sihasapa subtribe of the Lakota is sometime called Blackfoot as well.

## NATIVE AMERICANS OF THE AREA (continued)

Another name that causes great confusion is "Flathead." This is a tribe found just west of the northern Rocky Mountains. In this program the tribe is called Salish. This particular tribe did *not* practice head-flattening. The name arose among coastal tribes that *did* flatten their heads to describe the appearance of their neighbors that did *not* flatten their heads. Several authors who have written informal literature about Lewis and Clark (such as children's books) incorrectly assumed that the Flathead were the coastal tribes.

Finally, another confusing name is "Gros Ventre." The tribe most often called Gros Ventre is called Atsina in this program. But the Hidatsa are often called Gros Ventre as well. This confusion has led some authors to misidentify which tribes were the source of certain attacks against other tribes. Besides, the name Gros Ventre is French for "Big Belly," an inaccurate and demeaning appellation.

An example of a culture without tribal organization is the Pueblo culture of the Southwest. Each village, or pueblo, was politically independent, and each remained in a fixed location for centuries. Some villages spoke dialects related to those of neighboring pueblos. However, some pueblos spoke languages completely unrelated to those of their neighbors. Thus, there really is no "Pueblo tribe," only a Pueblo culture. Because the political unit is the village, not a tribe, the name of the political unit is simply the name of the village, such as Taos.

## REPRODUCIBLE WORKSHEETS

The reproducible worksheets found in this section may be very helpful for: a) focusing the attention of your students on specific learning objectives and b) encouraging them to take adequate notes. Each of the worksheets is referred to in one or more of the suggested lessons plans. However, you can certainly use the worksheets in lessons of your own design.

The following worksheets are included in this section:

- Worksheet #1: Record of Discoveries*
- Worksheet #2: Checklist of Discoveries*
- Worksheet #3: Empty Map*
- Worksheet #4: Outline of Western States*
- Worksheet #5: Record of Villages Visited*
- Worksheet #6: Locations of Landmarks*
- Worksheet #7: Species Discovered*

## Record of Discoveries

Instructions: Use this page to record your discoveries.

1. Native villages I visited:


2. Plants and animals my expedition discovered:


3. Landmarks I found:


## Checklist of Discoveries

Instructions: Use this checklist to record your discoveries.

### Native American Tribes:

- |                                     |  |  |
|-------------------------------------|--|--|
| <input type="checkbox"/> Arapaho    | <input type="checkbox"/> Kiowa             | <input type="checkbox"/> Omaha               |
| <input type="checkbox"/> Arikara    | <input type="checkbox"/> Klamath           | <input type="checkbox"/> Osage               |
| <input type="checkbox"/> Assiniboin | <input type="checkbox"/> Lakota            | <input type="checkbox"/> Pawnee              |
| <input type="checkbox"/> Atsina     | <input type="checkbox"/> Mandan            | <input type="checkbox"/> Ponca               |
| <input type="checkbox"/> Bannock    | <input type="checkbox"/> Nakota            | <input type="checkbox"/> Pueblo              |
| <input type="checkbox"/> Blackfoot  | <input type="checkbox"/> Nez Perce         | <input type="checkbox"/> Salish              |
| <input type="checkbox"/> Cheyenne   | <input type="checkbox"/> Nisqualli         | <input type="checkbox"/> Skitswish           |
| <input type="checkbox"/> Chinook    | <input type="checkbox"/> Northern Paiute   | <input type="checkbox"/> Tillamook           |
| <input type="checkbox"/> Crow       | <input type="checkbox"/> Northern Shoshoni | <input type="checkbox"/> Wind River Shoshoni |
| <input type="checkbox"/> Dakota     | <input type="checkbox"/> Ojibwe            | <input type="checkbox"/> Yakima              |

### New Species of Plants and Animals:

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> bear grass          | <input type="checkbox"/> mountain goat         | <input type="checkbox"/> prairie dog            |
| <input type="checkbox"/> black-billed magpie | <input type="checkbox"/> mule deer             | <input type="checkbox"/> pronghorn              |
| <input type="checkbox"/> black cottonwood    | <input type="checkbox"/> needle & thread grass | <input type="checkbox"/> rabbit brush           |
| <input type="checkbox"/> camas               | <input type="checkbox"/> orange honeysuckle    | <input type="checkbox"/> sharp-tailed grouse    |
| <input type="checkbox"/> cutthroat trout     | <input type="checkbox"/> Oregon white oak      | <input type="checkbox"/> sitka spruce           |
| <input type="checkbox"/> grand fir           | <input type="checkbox"/> Osage orange          | <input type="checkbox"/> spiny softshell turtle |
| <input type="checkbox"/> greasewood          | <input type="checkbox"/> pink cleome           | <input type="checkbox"/> swift fox              |
| <input type="checkbox"/> grizzly bear        | <input type="checkbox"/> pocket gopher         | <input type="checkbox"/> Townsend chipmunk      |
| <input type="checkbox"/> hoary sagebrush     | <input type="checkbox"/> ponderosa pine        | <input type="checkbox"/> western rattlesnake    |
| <input type="checkbox"/> mariposa lily       | <input type="checkbox"/> poor-will             | <input type="checkbox"/> yellow-bellied marmot  |

### Landmarks:

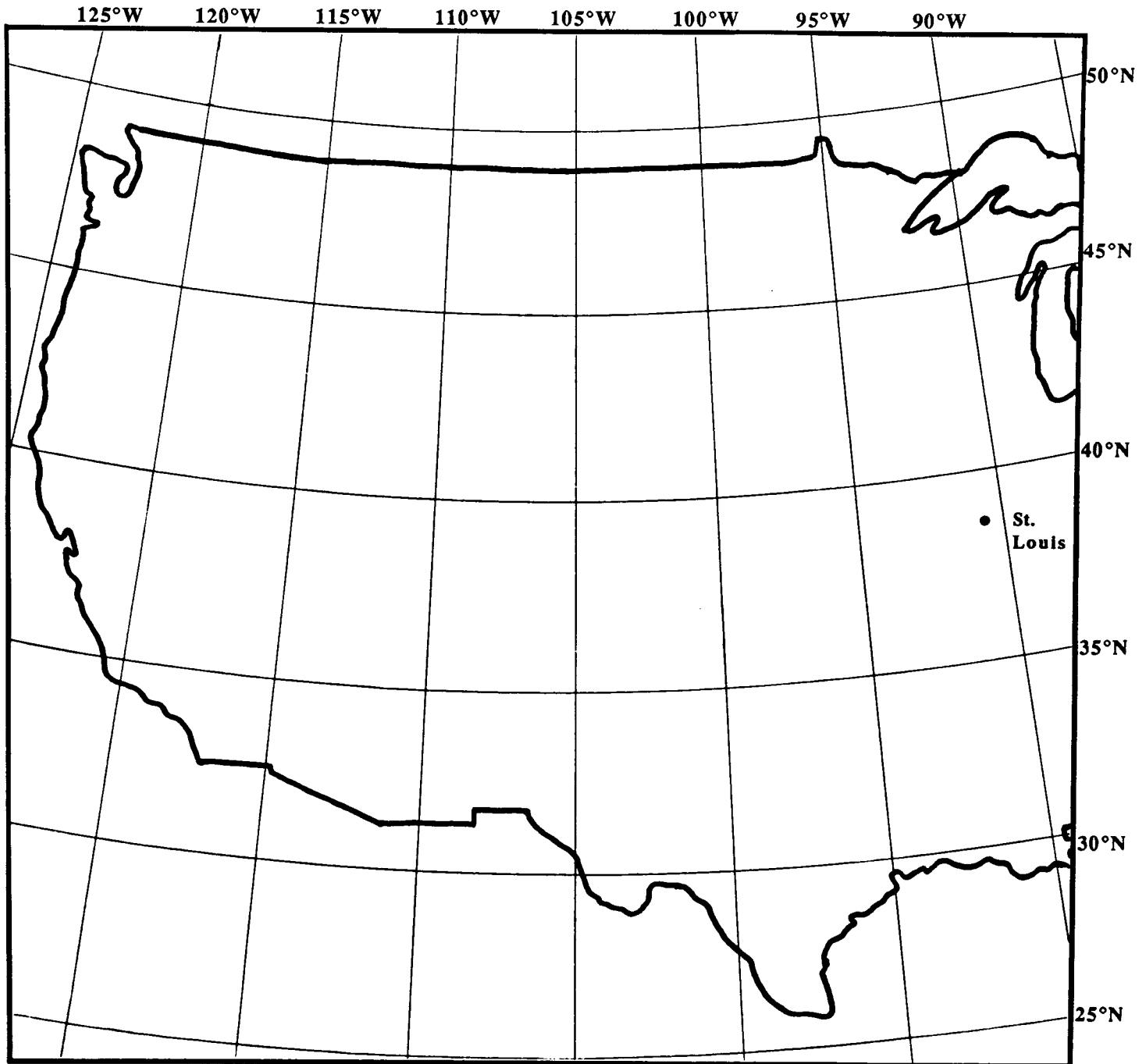
- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Albert Rim      | <input type="checkbox"/> City of Rocks | <input type="checkbox"/> Pawnee Rock      |
| <input type="checkbox"/> alkaline lakes  | <input type="checkbox"/> Crater Lake   | <input type="checkbox"/> petroglyphs      |
| <input type="checkbox"/> Antelope Hills  | <input type="checkbox"/> deep gorges   | <input type="checkbox"/> Pilot Knob       |
| <input type="checkbox"/> Badlands        | <input type="checkbox"/> Devil's Tower | <input type="checkbox"/> Pipestone Quarry |
| <input type="checkbox"/> Black Mesa      | <input type="checkbox"/> geysers       | <input type="checkbox"/> Pompey's Pillar  |
| <input type="checkbox"/> Boiling Springs | <input type="checkbox"/> Grand Coulee  | <input type="checkbox"/> sand dunes       |
| <input type="checkbox"/> buttes          | <input type="checkbox"/> hot springs   | <input type="checkbox"/> Santa Fe         |
| <input type="checkbox"/> Chimney Rock    | <input type="checkbox"/> lava beds     | <input type="checkbox"/> Sheep Rock       |
|  |  | <input type="checkbox"/> volcanic peaks   |

### Vegetation Zones:

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Alpine barrens | <input type="checkbox"/> Hardwood forest    | <input type="checkbox"/> Shrub steppe      |
| <input type="checkbox"/> Conifer forest | <input type="checkbox"/> Mountain forest    | <input type="checkbox"/> Subalpine forest  |
| <input type="checkbox"/> Desert         | <input type="checkbox"/> Savanna            | <input type="checkbox"/> Swamp             |
| <input type="checkbox"/> Foothill scrub | <input type="checkbox"/> Shortgrass prairie | <input type="checkbox"/> Tallgrass prairie |

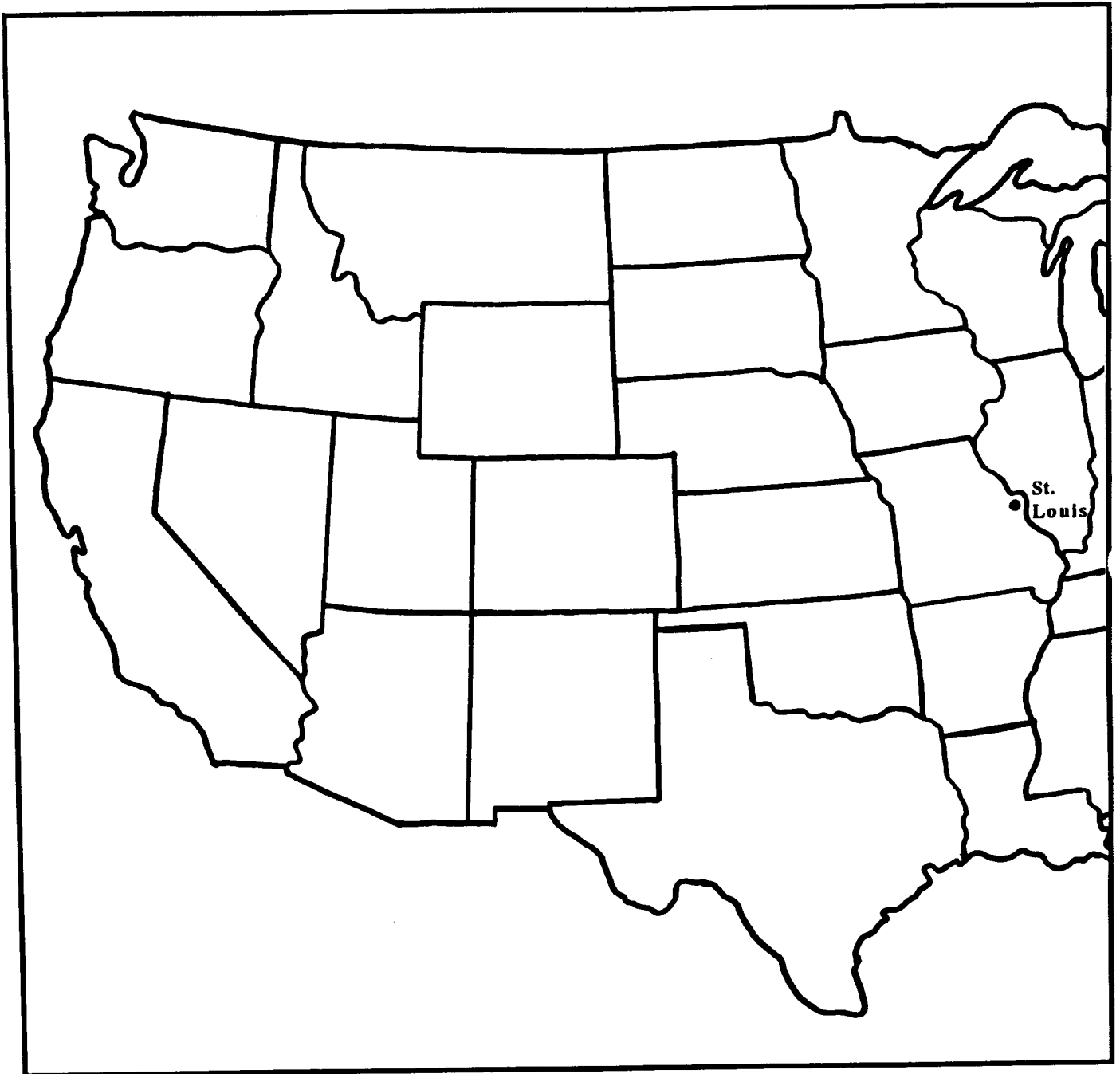
# Empty Map

3



## Outline of Western States

4





## Record of Villages Visited

5

	Location	Home	Foods	Allies
Arapaho	_____	_____	_____	_____
Arikara	_____	_____	_____	_____
Assiniboin	_____	_____	_____	_____
Atsina	_____	_____	_____	_____
Bannock	_____	_____	_____	_____
Blackfoot	_____	_____	_____	_____
Cheyenne	_____	_____	_____	_____
Chinook	_____	_____	_____	_____
Crow	_____	_____	_____	_____
Dakota	_____	_____	_____	_____
Kiowa	_____	_____	_____	_____
Klamath	_____	_____	_____	_____
Lakota	_____	_____	_____	_____
Mandan	_____	_____	_____	_____
Nakota	_____	_____	_____	_____
Nez Perce	_____	_____	_____	_____
Nisqualli	_____	_____	_____	_____
Northern Paiute	_____	_____	_____	_____
Northern Shoshoni	_____	_____	_____	_____
Ojibwe	_____	_____	_____	_____
Omaha	_____	_____	_____	_____
Osage	_____	_____	_____	_____
Pawnee	_____	_____	_____	_____
Ponca	_____	_____	_____	_____
Pueblo	_____	_____	_____	_____
Salish	_____	_____	_____	_____
Skitswish	_____	_____	_____	_____
Tillamook	_____	_____	_____	_____
Wind River Shoshoni	_____	_____	_____	_____
Yakima	_____	_____	_____	_____

## Locations of Landmarks

Instructions: As you discover each of the following landmarks, record its latitude and longitude. Then, using an atlas or map, determine which U.S. state now contains the site, as well as the name of a nearby large town or city.

	Latitude and Longitude	U.S. State	Nearest City
Albert Rim	_____	_____	_____
Antelope Hills	_____	_____	_____
Badlands	_____	_____	_____
Black Mesa	_____	_____	_____
Boiling Springs	_____	_____	_____
Chimney Rock	_____	_____	_____
City of Rocks	_____	_____	_____
Crater Lake	_____	_____	_____
Devil's Tower	_____	_____	_____
Grand Coulee	_____	_____	_____
Pawnee Rock	_____	_____	_____
Pilot Knob	_____	_____	_____
Pipestone Quarry	_____	_____	_____
Pompey's Pillar	_____	_____	_____
Santa Fe	_____	_____	_____
Sheep Rock	_____	_____	_____
geysers	_____	_____	_____
hot springs	_____	_____	_____
petroglyphs	_____	_____	_____
lava beds	_____	_____	_____
alkaline lake	_____	_____	_____
sand dunes	_____	_____	_____
butte	_____	_____	_____
butte	_____	_____	_____
deep gorge	_____	_____	_____
deep gorge	_____	_____	_____
volcanic peak	_____	_____	_____
volcanic peak	_____	_____	_____

# Species Discovered

Instructions: As you discover each of the following species, make a note of the local habitat in the blank space.

## PLANTS - herbaceous

bear grass	Xerophyllum tenax	_____
camas	Camassia quamash	_____
mariposa lily	Calochortus elegans	_____
needle & thread grass	Stipa comata	_____
orange honeysuckle	Lonicera cilosa	_____
pink cleome	Cleome serrulata	_____
rabbit brush	Chrysothamnus nauseosus	_____

## PLANTS - trees and shrubs

black cottonwood	Populus trichocarpa	_____
grand fir	Abies grandis	_____
greasewood	Sarcobatus vermiculatus	_____
hoary sagebrush	Artemisia cana	_____
Oregon white oak	Quercus garryana	_____
Osage orange	Maclura pomifera	_____
ponderosa pine	Pinus ponderosa	_____
sitka spruce	Picea sitchensis	_____

## ANIMALS - fish, reptiles, and birds

black-billed magpie	Pica pica	_____
cutthroat trout	Salmo clarkii	_____
poor-will	Phalaenoptilus nuttalli	_____
sharp-tailed grouse	Pedioecetes phasianellus	_____
spiny softshell turtle	Trionyx spiniferus	_____
western rattlesnake	Crotalus viridis	_____

## ANIMALS - mammals

grizzly bear	Ursus horribilis	_____
mountain goat	Oreamnos americanus	_____
mule deer	Odocoileus hemionus	_____
pocket gopher	Thomomys talpoides	_____
prairie dog	Cynomys ludovicianus	_____
pronghorn	Antilocapra americana	_____
swift fox	Vulpes velox	_____
Townsend chipmunk	Eutamias townsendi	_____
yellowbelly marmot	Marmota flaviventris	_____

## REPRODUCIBLE HANDOUTS

The reproducible handouts found in this section provide important background information that may be useful to you and your students. Each of the handouts is referred to in one or more of the suggested lessons plans. Depending upon the specific learning objectives you wish to emphasize, you may find it helpful to give each student or team a copy of one or more handouts to use as reference as they play the game.

The following handouts are included in this section:

*Handout #1: Data on Selected Native American Nations*

*Handout #2: Identifiable Geographic Features*

*Handout #3: Route of the Lewis and Clark Expedition*

*Handout #4: Roles of Team Members*

Note: Handout #4 appears in three versions, labeled #4a through #4c.

## Data on Selected Native American Nations

Each of the 30 villages found in the simulation corresponds to one of the nations listed below (except Mandan / Hidatsa, which have separate entries).

Name in the Program	Name for Themselves	Other Names	Culture Region	Language Family	Example Subgroup
Arapaho	Inuna-ina		Plains	Algonquian	
Arikara	Tanish		Plains	Caddoan	
Assiniboin	Nakota		Plains	Siouan	
Atsina	Haaninin	Gros Ventre	Plains	Algonquian	
Bannock			Plateau & Basin	Shoshonean	
Blackfoot	Siksika		Plains	Algonquian	Piegan
Cheyenne	Tsistsista		Plains	Algonquian	
Chinook			Northwest Coast	Chinookan	
Crow	Absaroka		Plains	Siouan	
Dakota	Isanyati	Santee Sioux	Plains	Siouan	Sisseton
Hidatsa	Absaroka	Minitaree, Gros Ventre	Plains	Siouan	
Kiowa	Kaigwu		Plains	Tanoan (?)	
Klamath	Maklak		Plateau & Basin	Penutian	
Lakota	Titonwan	Teton Sioux	Plains	Siouan	Oglala
Mandan	Numakaki		Plains	Siouan	
Nakota	Ihunktonwan	Yankton Sioux	Plains	Siouan	Yankton
Nez Perce	Tsutpeli		Plateau & Basin	Penutian	
Nisqualli	Sqole'abch		Northwest Coast	Salishan	
Northern Paiute	Say-do-carah	Paviotso	Plateau & Basin	Shoshonean	
Northern Shoshoni	Nomo		Plateau & Basin	Shoshonean	
Ojibwa	Anishinabe	Chippewa	Woodlands	Algonquian	
Omaha	Omaha		Plains	Siouan	
Osage	Ni-U-Ko'n-Ska		Plains	Siouan	
Pawnee	Chahiksichahiks		Plains	Caddoan	Skidi
Ponca			Plains	Siouan	
Pueblo	various names		Southwest	several	Taos
Salish	Salst, Salish	Flathead	Plateau & Basin	Salishan	
Skitswish	Skitswish	Coeur d'Alene	Plateau & Basin	Salishan	
Tillamook			Northwest Coast	Salishan	
Wind River Shoshoni			Plateau & Basin	Shoshonean	
Yakima	Waptailmim		Plateau & Basin	Penutian	

## Identifiable Geographic Features

2

The following geographic features can all be found in *Lewis and Clark Stayed Home*. However, the program does not specifically identify these features. So, to locate all of them, you will have to do some detective work using an atlas or a detailed physical map of the United States.

### Rivers

Arkansas  
Columbia  
Mississippi

Missouri  
Platte

Snake  
Yellowstone

### Lakes

Flathead Lake (MT)  
Lake of the Woods (MN)  
Lake Pend Oreille (ID)  
Lake Superior (MN)  
Lake Winnibigoshish (MN)

Leech Lake (MN)  
Malheur Lake (OR)  
Mille Lacs Lake (MN)  
Rainy Lake (MN)

Red Lake (MN)  
Salt Lake (UT)  
Upper Klamath Lake (OR)  
Yellowstone Lake (WY)

### Mountains

Glacier Peak (WA)  
Mt. Adams (WA)  
Mt. Baker (WA)  
Mt. Hood (OR)

Mt. Jefferson (OR)  
Mt. Ranier (WA)  
Pikes Peak (CO)

Sheens Mt. (OR)  
Three Sisters (OR)  
Wheeler Peak (NM)

### Mountain Ranges

Bighorn Mts. (WY)  
Bitterroot Range (ID, MT)  
Black Hills (SD)  
Blue Mts. (OR, WA)  
Cascade Range (OR, WA)  
Coast Range (OR, WA)  
Front Range (CO)

Laramie Range (WY)  
Olympic Mts. (WA)  
Pine Ridge (NE, SD)  
Sangre de Cristo Range (CO, NM)  
Sawtooth Mts. (ID)  
Wind River Range (WY)

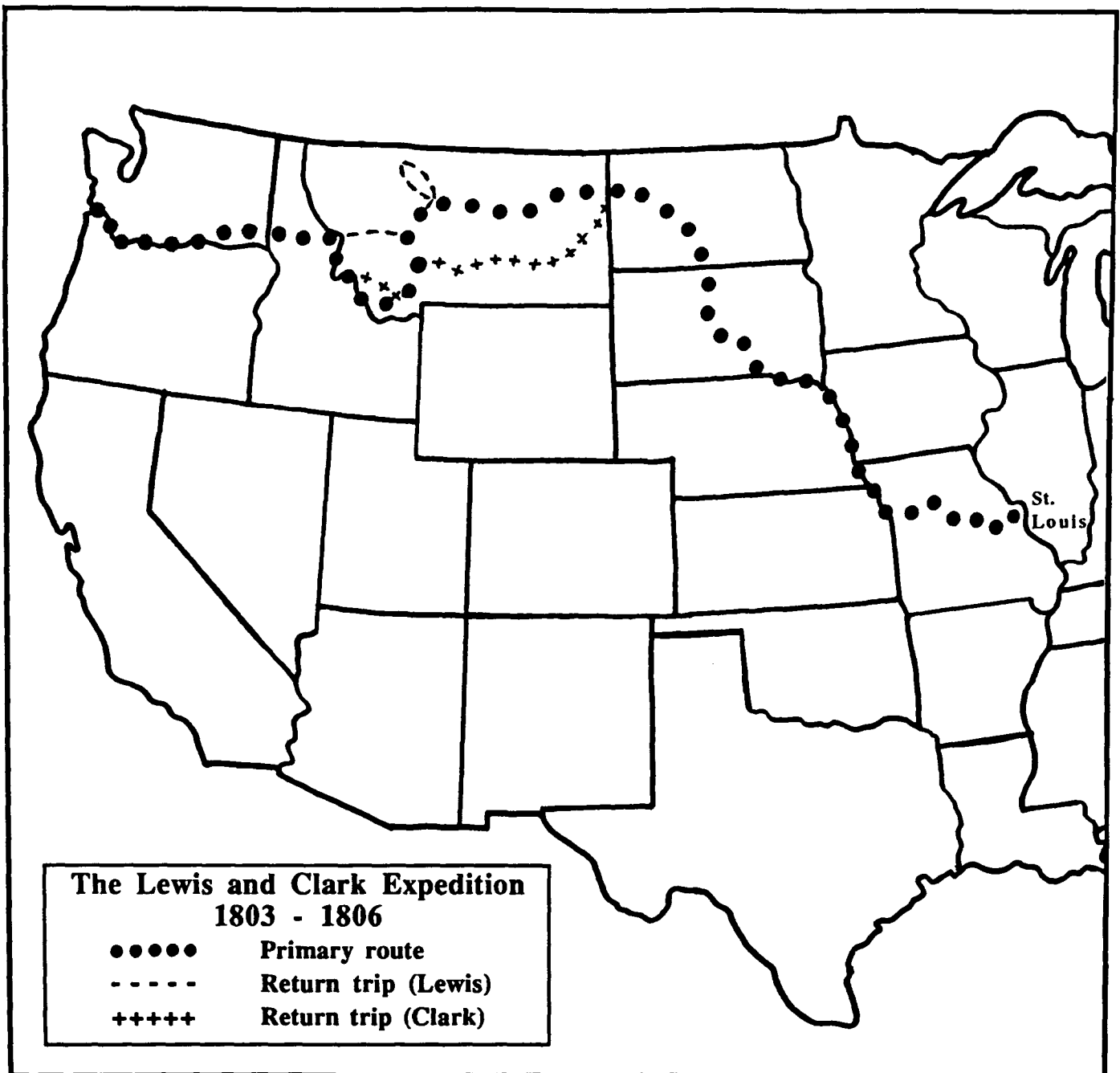
### Other

Bear Butte (SD)  
Bighorn Canyon (MT)  
Great Falls (MT)  
Great Sand Dunes (CO)  
Hells Canyon (OR, ID)  
Oregon Dunes (OR)

Puget Sound (WA)  
Rio Grande Gorge (NM)  
Royal Gorge (CO)  
Steptoe Butte (WA)  
White Butte (ND)  
Willamette Valley (OR)

## Route of the Lewis and Clark Expedition

3



## Roles of Team Members

### Taskmaster

- assigns the tasks to the members of the party (Sergeant, Hunter, Cook, etc.)
- keeps track of the levels of supplies
- reassigns the tasks of party members based on the changing situation and the changing levels of supplies
- determines what supplies need to be obtained through trade with native villages
- makes sure that everyone in the group contributes ideas and gives a rationale for whatever decisions they make

### Negotiator

- handles interactions with the native villages: conducts trade, interviews the inhabitants, offers gifts if necessary, and leaves the village when all business is concluded
- checks off discoveries on the worksheet
- praises group members for contributing ideas, asking questions, and actively participating in the discussions

### Navigator

- plans the route of the expedition before departing from St. Louis
- guides the party across the landscape, pressing the arrow keys to travel along
- periodically checks the overview map
- ensures that everyone agrees regarding decisions that need to be made, such as planning the route, reassigning tasks of party members, conducting trade, etc.



## Roles of Team Members

### Guide

- guides the party across the landscape, pressing the arrow keys to travel, making sure to visit each native village that is discovered
- records on the map the location of each village visited
- studies Handout #1 for information about the village currently being visited
- makes sure that everyone in the group contributes ideas and gives a rationale for whatever decisions they make

### Researcher

- interviews each tribe visited in order to obtain as much information as possible
- points out to the Reporter any information that should be recorded on the worksheet
- praises group members for contributing ideas, asking questions, and actively participating in the discussions

### Reporter

- records the appropriate information on Worksheet #5 as provided by team members
- ensures that everyone agrees regarding decisions that need to be made, such as what direction to travel and what information to enter on the worksheet
- reports the group's findings to the entire class

## Roles of Team Members

### Traveler

- operates the keyboard, discovering information that can be mapped
- for each landmark that is discovered, records the appropriate information in Worksheet #6
- makes sure that everyone in the group contributes ideas and gives a rationale for whatever decisions they make

### Mapper

- sketches in the discoveries on the outline map: mountains, rivers, landmarks, native villages, etc.
- labels all features on the map: native villages with the name of the tribe and all other features with their modern names
- praises group members for contributing ideas, asking questions, and actively participating in the discussions

### Researcher

- follows the progress of the expedition on the modern map or atlas
- relates each discovery to nearby features on the modern map so that the Mapper knows where to plot it and the Traveler knows what to record
- ensures that everyone agrees regarding decisions that need to be made, such as what direction to travel next or where to plot a particular feature on the map
- reports the group findings to the entire class

## THINKING SKILLS

### Using Computer Software in a Thinking Skills Environment

Teachers are faced with the tremendous task of preparing today's students for tomorrow's world—a world characterized by change in an information-rich environment. Thinking skills are at the heart of this thriving, changing environment, for these are the behaviors students must practice in school and continue to apply for the rest of their lives.

It wasn't long ago that thinking skills were considered exclusive to gifted and enrichment classes. Today, however, thinking skills are viewed as an essential component of the total school curriculum. Developing these skills is the goal of each individual discipline. Many educators have, in fact, come to view thinking skills as perhaps the most basic of the basic skills because they facilitate the acquisition of all other learning.

At MECC, we view computer software as a vehicle for fostering students' thinking. Our products are curriculum-based, with thinking skills as a thread within subject areas. This provides an environment with many opportunities for teachers to highlight and reinforce thinking skills.

We believe teachers play a critical role in determining the classroom environment for thinking. Naturally, many teachers have taught thinking skills and will continue to do so, using a variety of strategies. Our commitment is to provide teachers with the materials that help them do their job well: high-quality software that promotes the application of thinking skills.

Our approach to thinking skills reflects what both research and effective classroom practice has shown. That is, the approach that is most effective and appeals to most teachers is one that infuses thinking skills into existing content areas. Educators have told us they are interested in thinking skills as a method used in the instruction of a topic, not as a subject. By infusing thinking skills into existing content areas, MECC products integrate easily into teachers' curricula while providing a rich environment for students to practice skillful thinking. We strive to meet the challenge teachers face in promoting the skills that students need.

If schools are to integrate the teaching of thinking with regular academic instruction, they need to know which aspects of thinking to teach. After exploring the research that has been done in the area of thinking skills, MECC has chosen as a base the *Dimensions of Thinking* framework, published in 1988 by the Association of Supervision and Curriculum Development (ASCD). We chose this framework because it pulls together research and models from a variety of sources and brings the theory to the classroom level, applying it to that environment. In addition to knowing the subject matter that is covered, teachers now can see the specific thinking skills that are challenged within a product.

This section highlights ways in which teachers can use *Lewis and Clark Stayed Home* to promote thinking skills with their students. The following pages provide examples of how *Lewis and Clark Stayed Home* relates to the ASCD core thinking skills framework. Although only one thinking skill per category is correlated to a specific part of the product, each skill can be practiced on many levels and in many aspects of the product.

We realize the importance of thinking skills in the curriculum. We believe it is essential that students be taught thinking skills so that they have the tools to understand the past, deal with the present, and prepare for the future. We are confident that you will find *Lewis and Clark Stayed Home* of considerable value in your classroom as you foster student thinking.

## THINKING SKILLS (continued)

### A Framework for Thinking

The components used in thinking are referred to as *core thinking skills*. This framework defines those skills that appear in the repertoire of the model learner. Each skill selected is documented in research as important to learning or thinking, is teachable, and is valued by educators as important for students to learn.

The core skills of the ASCD framework are listed and defined below with examples of applications within *Lewis and Clark Stayed Home*. The skills are neither discrete nor hierarchical. In fact, individual skills draw on other skills and can be used repeatedly in the thinking process. The selected examples are not exhaustive but highlight ways in which these thinking skills are used with *Lewis and Clark Stayed Home*.

Source: *Dimensions of Thinking*, Association for Supervision and Curriculum Development (ASCD), 1988.

Definition of Core Thinking Skills Categories	Core Thinking Skills Components	<i>Lewis and Clark Stayed Home</i> Application
<b>Focusing Skills</b> allow students to attend to selected pieces of information and ignore others. Focusing occurs when students sense a problem, an issue, or a lack of meaning.	<b>Focusing Skills</b> <ul style="list-style-type: none"> <li>• Defining Problems</li> <li>• Setting Goals</li> </ul>	Students assume the role of a contemporary of Meriwether Lewis and William Clark. Through various levels of play, students will explore and map the Louisiana Purchase, establish friendly contacts with the native people, and find a route to the Pacific Ocean.
<b>Information Gathering Skills</b> involve obtaining information and clarifying issues and meanings through inquiry.	<b>Information Gathering Skills</b> <ul style="list-style-type: none"> <li>• Observing</li> <li>• Formulating Questions</li> </ul>	As students explore the territory west of the Mississippi, their long journey will carry them through a great diversity of landscapes, different landforms, climates, geology, vegetation, animals, and native cultures. The information gleaned from these sources will assist them in reaching their goals.
<b>Remembering Skills</b> are those activities or strategies that students consciously engage in to store and retrieve information from long-term memory. Activating prior knowledge falls under this category.	<b>Remembering Skills</b> <ul style="list-style-type: none"> <li>• Encoding</li> <li>• Recalling</li> </ul>	Each level of play in <i>Lewis and Clark Stayed Home</i> presents students with tougher challenges and longer time limits for their explorations. Applying the knowledge they acquired at the Beginning level, students will expand their strategies as they plan their journey and explore various levels of play.

## THINKING SKILLS (continued)

Definition of Core Thinking Skills Categories	Core Thinking Skills Components	<i>Lewis and Clark Stayed Home Application</i>
<b>Organizing Skills</b> are used to arrange information so that it can be understood or presented more effectively.	<b>Organizing Skills</b> <ul style="list-style-type: none"> <li>• Comparing</li> <li>• Classifying</li> <li>• Ordering</li> <li>• Representing</li> </ul>	Along the expedition, thirty different Native American villages can be visited. Students can compare and contrast the similarities and differences in their clothing, housing, foods, languages, natural environments, economic bases, and reactions to the arrival of your expedition.
<b>Analyzing Skills</b> are used to clarify existing information by examining parts and relationships. Through analysis, students identify and distinguish components, attributes, claims, assumptions, or reasoning.	<b>Analyzing Skills</b> <ul style="list-style-type: none"> <li>• Identifying Attributes and Components</li> <li>• Identifying Relationships and Patterns</li> <li>• Identifying Main Ideas</li> <li>• Identifying Errors</li> </ul>	As students visit villages, they engage in trade and conversation with the natives. Students may identify how landscapes, climates, geology, vegetation, and animals affect the lifestyles in the Native American cultures they encountered.
<b>Generating Skills</b> involve using the students' prior knowledge to add information beyond what is given. Connections between new ideas and prior knowledge are made as new information and ideas are recast into new structures.	<b>Generating Skills</b> <ul style="list-style-type: none"> <li>• Inferring</li> <li>• Predicting</li> <li>• Elaborating</li> </ul>	By using the information they have gathered throughout their expedition, as well as information from other study of Lewis and Clark, students can make predictions as to why a particular route or visit with a Native American tribe might have affected the journey.
<b>Integrating Skills</b> involve putting together the relevant parts or aspects of a solution, understanding, principle, or composition and incorporating this integrated information into a new understanding.	<b>Integrating Skills</b> <ul style="list-style-type: none"> <li>• Summarizing</li> <li>• Restructuring</li> </ul>	As students complete their journeys, have them share and discuss their observations, findings, and strategies. As they compare the composite experience to what they know about the actual expedition, they can restructure further expeditions based on these new understandings.
<b>Evaluating Skills</b> involve assessing the reasonableness and quality of ideas.	<b>Evaluating Skills</b> <ul style="list-style-type: none"> <li>• Establishing Criteria</li> <li>• Verifying</li> </ul>	As students return to St. Louis and discuss the feedback from Lewis and Jefferson, have them explore what they could do differently in order to increase their level of success. Have them identify and prioritize the criteria for determining success.

## BIBLIOGRAPHY

### History of the Lewis and Clark Expedition

Blumberg, Rhoda. 1987. *The Incredible Journey of Lewis and Clark*. Lothrop, Lee & Shepard Books (New York). 144 pp.

An excellent book for casual and adolescent readers. The author takes great pains to be historically accurate, while maintaining a highly interesting narrative. The text is written in a clear, understandable prose appropriate for young people. The layout of the book is also attractive, with a variety of 19th-century illustrations. One caution, though: the author on several occasions touches briefly upon adult topics, such as the sexual practices of the tribes encountered.

Cutright, Paul Russell. 1969. *Lewis and Clark: Pioneering Naturalists*. University of Illinois Press (Urbana). 506 pp.

A thick book, but an excellent reference for the natural history aspects of Lewis and Clark's journey. The book specifically identifies the plants, animals, Indian tribes, and topographic features encountered by Lewis and Clark in each leg of their journey. Furthermore, the book presents a carefully detailed narrative of their journey, with special attention paid to the details of their route. Another aspect carefully elaborated is the use by the various Indian tribes of native plants and animals, along with other ethnological details.

Gilbert, Bil. 1973. *The Trailblazers*. Time-Life Books (New York). 236 pp.

An excellent resource for getting the big picture about Western exploration from 1800 to 1880. The first of the six chapters is devoted exclusively to Lewis and Clark. Other explorations in the years immediately following (Pike, the Astorians, etc.) are of particular interest. A variety of 19th-century paintings, etchings, and photographs are included. The paintings of some of the plants found by Lewis and Clark are worth noting.

Holloway, David. 1974. *Lewis & Clark and the Crossing of North America*. Saturday Review Press (New York). 224 pp.

A very good reference on Lewis and Clark's journey, with a reading level appropriate for secondary students and adults. Many 19th-century paintings and drawings are included.

Lavender, David. 1988. *The Way to the Western Sea: Lewis and Clark Across the Continent*. Harper & Row (New York). 444 pp.

An excellent book for high-school students and adults. The author combines historical accuracy with an interesting style. The first 100 pages deal with the background of, and preparation for, the journey. The next 270 pages detail the journey itself. The remaining pages include such sections as an epilogue to the journey, the complete text of Jefferson's instructions to Lewis, and a list of the people in the traveling party.

## **BIBLIOGRAPHY (continued)**

McGrath, Patrick. 1985. *The Lewis and Clark Expedition*. Silver Burdett Company (Morristown, New Jersey). 64 pp.

An excellent book for upper elementary students. The narrative approach is like that of a film or a novel, starting in the middle of the story and then filling in the background information. Interesting illustrations and maps are included, along with a list of suggested reading.

### **American Indian Tribes**

Andrews, Ralph W. 1960. *Indian Primitive*. Bonanza Books (New York). 175 pp.

This is a fascinating book with a terrible title. The subtitle on the cover is much more useful (and more tactful): "Northwest Coast Indians of the Former Days" The book covers the region tribe by tribe, providing useful information on each. But the best feature of the book is the large quantity of historical black-and-white photographs of Northwest Coast tribes.

Andrews, Ralph W. 1962. *Curtis' Western Indians*. Superior Publishing Company (Seattle). 176 pp.

This book serves two purposes: 1) to relate the story of Edward Curtis, who devoted most of his life to producing a photographic record of the vanishing customs of North American Indians, and 2) to present a fascinating sample of the many thousands of photographs made by Curtis. Photographs representing more than 60 tribes (all west of the Mississippi) are included, showing faces, clothing, housing, and various aspects of daily life.

Catlin, George. Edited by Michael M. Mooney. 1975. *Letters and Notes on the North American Indians*. Clarkson N. Potter, Inc. (New York). 366 pp.

Originally published in 1841, this book is as amazing now as it was then. Catlin spent considerable time among the Plains tribes during the 1830s, perhaps the last decade in which Native Americans were still the dominant culture in that region. He has written a lengthy text, but the real interest in the book is the many spectacular paintings and drawings. Catlin's is among the best records of life on the Plains.

Fleming, Paula Richardson, and Judith Luskey. 1986. *The North American Indians in Early Photographs*. Harper & Row (New York). 256 pp.

This oversized volume is filled with historical black-and-white photographs from the 1800s and into the early 1900s. Extended captions give information on each photograph: subject, location, photographer, date, etc. An excellent reference, even though a few of the photographs are rather grisly.

## BIBLIOGRAPHY (continued)

Franklin, Paula A. 1979. *Indians of North America: The Eight Culture Areas and How Their Inhabitants Lived Before the Coming of the Whites*. David McKay Company, Inc. (New York). 182 pp.

A good book for the middle-school level reader. The division of the book into eight culture regions is effective. The book consists mostly of text, but the limited number of line drawings are excellent.

Haines, Francis. 1970. *Indians of the Great Basin and Plateau*. G. P. Putnam's Sons (New York). 224 pp.

It is harder to find books on Indians of the Great Basin and Plateau region than on most other regions, and thus this book fills an important need. The book consists mostly of text, but the limited number of photographs are useful.

LaFarge, Oliver. 1956. *A Pictorial History of the American Indian*. Crown Publishers, Inc. (New York). 272 pp.

An oversized volume containing a great deal of information. The author, a Pulitzer-Prize winner, includes a lengthy but interesting text, written from a very sympathetic point of view. There is a huge number of black-and-white illustrations, including historical and modern photographs, paintings, and drawings, along with photographs of dioramas. The topics of these illustrations include the people, housing, handicrafts, and aspects of everyday life.

Leitch, Barbara A. 1979. *A Concise Dictionary of Indian Tribes of North America*. Reference Publications (Algonac, Michigan). 646 pp.

An absolutely essential reference for understanding the many Indian tribes of North America and relationships between them. The entries are arranged alphabetically, each being the name of a tribe, a tribal subgroup, or a confederation or other larger grouping. Synonyms are cross-referenced. Each entry provides a great deal of information about that particular tribe, including its history, location, size, linguistic affiliation, religious practices, foods, clothing, economy, customs, and relationships with neighboring tribes. Most entries include a photograph or drawing as well.

Scherer, Joanna C. 1973. *Indians: The Great Photographs That Reveal North American Indian Life, 1847-1929, from the Unique Collection of the Smithsonian Institution*. Crown Publishers, Inc. (New York). 190 pp.

An excellent collection of photographs covering native tribes from many different parts of the United States. The book is divided into three parts, titled "The way they looked," "The way they lived," and "Envoys to Washington." The first two parts, illustrating the diversity in appearance and life styles of Native Americans, are especially useful. For example, this is one of the best books for seeing the diversity of housing construction among the various tribes.



## BIBLIOGRAPHY (continued)

Tunis, Edwin. 1959. *Indians*. The World Publishing Company (Cleveland). 157 pp.

This book describes itself as “a pictorial re-creation of American Indian life before the arrival of the white man . . . .” Its salient feature are the beautiful ink drawings that dominate each page. These drawings convey the myriad details of daily living, with special emphasis on the tools, artifacts, and methods utilized by the various cultural groups.

### Geography of the American West

Beck, Warren A., and Ynez D. Haase. 1989. *Historical Atlas of the American West*. University of Oklahoma Press (Norman). 198 pp.

Primarily a book of maps. Each of the 78 “chapters” consists of two pages: a pen and ink map on the left and a related narrative on the right. These maps cover a wide variety of historical topics, along with some contemporary issues. Of particular value are the various maps dealing with the original explorations of the American West. Chapters dealing with natural history topics (climate, vegetation, landforms) and with Indian tribes are also useful.

Da Costa, Beverly, ed. 1972. *Natural Wonders of America*. American Heritage Publishing Co., Inc. (New York). 320 pp.

A book the size of a field guide, divided into 50 chapters, with one chapter for each state. Within each state, a brief (one paragraph) description is provided for each of the principal natural wonders of that state. It also tells exactly how to get there, and where to write for more information. A scattering of small black and white photographs helps balance the text. In some respects, this book strongly resembles a AAA motoring guide. This is a great book to take on a vacation and a very useful reference for the landmarks in Lewis and Clark.

Hunt, Charles B. 1967. *Physiography of the United States*. W. H. Freeman and Company (San Francisco). 480 pp.

Presents an excellent, detailed discussion of all the regions of the United States, complete with numerous drawings, maps, and diagrams. The terminology is advanced, so an understanding of terms from both historical and physical geology is quite helpful. The emphasis of the book is on surface landforms and the underlying structural geology, but additional discussions also cover such topics as climate, vegetation, soils, drainage systems, crops, minerals, and so on. The book is divided into two parts, General Physiography (133 pp.) and Physiography of the Provinces (319 pp.), a region by region look at the United States.

Joseph, Alvin M., Jr., ed. 1972. *The American Heritage Book of Natural Wonders (2nd edition)*. American Heritage Publishing Co., Inc. (New York). 384 pp.

Covers each region of the United States in the form of essays, each by a different author. The book is filled with large, splendid photographs, mostly in black and white, of scenic views in the United States. There are also a large number of paintings. Many of these illustrations are historical. Another useful feature is a collection of maps of major national parks. Each of these maps is in the form of a color painting, from a slant aerial view showing all the landforms, and generously labeled.

## BIBLIOGRAPHY (continued)

O'Neill, Catherine. 1984. *Natural Wonders of North America*. National Geographic Society. Washington, D.C. 104 pp.

This book divides North America into seven geologic regions, then devotes a chapter to each of the regions. The emphasis is on the visuals: lots of large beautiful photographs and colorful maps. The text is kept short and simple.

Ruth, Kent. 1986. *Landmarks of the West: A Guide to Historical Sites (2nd edition)*. University of Nebraska Press (Lincoln). 309 pp.

This book profiles nearly 150 historical sites west of the Mississippi River. The sites are grouped by state, with the states arranged alphabetically. Each profile consists of a two-page spread: on the left, a page of text and a small locator map; on the right, a photograph, painting, or drawing as it was then and as it is today. Most of the historical sites date from somewhat later than Lewis and Clark, but the book is nonetheless fascinating.

Scheffel, Richard L., and Susan J. Wernert, eds. 1980. *Natural Wonders of the World*. The Reader's Digest Association, Inc. (Pleasantville, New York). 463 pp.

An amazing book about amazing places all over the world. The book contains about 600 entries, arranged alphabetically like an encyclopedia. Each entry thoroughly describes a different "natural wonder," and most entries include a full-color photograph. Each entry is keyed to a section of maps so that the location of each wonder can be precisely located. A summary of contents lists the wonders alphabetically by country. Fifty-six of the wonders are located in the United States, and 13 of these are within the area covered by *Lewis and Clark Stayed Home*.

Shimer, John A. 1972. *Field Guide to Landforms in the United States*. The Macmillan Company (New York). 272 pp.

Contains a large quantity of excellent pen and ink drawings of various landforms in the United States, along with several excellent black and white photographs. The book is divided into two parts of approximately equal length. The first half divides the U.S. into various geologic provinces, and each chapter treats a different province. The second half is a general discussion of various kinds of landform features. This second part is particularly interesting (and unique as well) and includes many helpful illustrations.

### Plant and Animal Life of the American West

Burt, William H., and Richard P. Grossenheider. 1980. *A Field Guide to the Mammals: North America North of Mexico, 3rd edition*. Houghton Mifflin Company (Boston). 289 pp.

An excellent field guide, with detailed paintings of each species, along with very clear range maps that include state boundaries. Covers the entire U.S. (except Hawaii) plus Canada.

## BIBLIOGRAPHY (continued)

Farrand, John, Jr. 1988. *How to Identify Birds*. McGraw-Hill (New York). 320 pp.

A very different kind of field guide. The book is divided into six sections: 1) Habitat, 2) Size, 3) Behavior, 4) Shape and Posture, 5) Color and Pattern, and 6) Voice. Each section is illustrated with large numbers of photographs, along with helpful summary tables. While all the sections are quite good, the sections on habitat and behavior are particularly noteworthy. For example, the Habitat section includes maps dividing the United States into 23 habitat zones. Then, for each of these zones, a collection of up to 16 beautiful photographs illustrates the type of habitat. This section has applications well beyond the study of birds.

Little, Elbert. L. 1980. *The Audubon Society Field Guide to North American Trees, Western Region*. Alfred A. Knopf (New York). 640 pp.

Another excellent field guide, with photographs of leaves and bark for all included species, and the cones or flowers and fruit of most. The text section includes small range maps, including state boundaries, along with silhouettes of the trees and sometimes drawings of the fruit.

## CREDITS

The creation of *Lewis and Clark Stayed Home* was guided by a core team of five people:

R. Philip Bouchard (Bouchard Creations): research, design, programming, teacher's manual

Charolyn Kapplinger (MECC): graphics, design consultant

Craig Solomonson (MECC): project coordination, design consultant

John A. Persoon (MECC): conversion from the Orca 4.1 assembler to the Uniware assembler; design consultant

Rich Bergeron (MECC): Native American consultant; design consultant

Off-site testing during development was conducted at the following schools:

- Island Lake Elementary School, Shoreview MN, grade 5. Teacher: Steve Zehm
- Red School House, St. Paul MN, grades 5-8. Teachers: Cherie Neima, Nancy Stachel, and Brenda Perrault

MECC staff assisted in one way or another during the development of the product, most often by testing out the various versions and offering suggestions for improvement. A partial list of these people includes:

Miryam Acevedo-Bouchard, Beth Bell, Sue Gabrys, John Hickman, Scott Jensen, and Wayne Studer

And special thanks to Greg Holey, Software Division Manager, for approving and supporting the concept for this product.

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### TO THE READER

MECC has made every effort to ensure the instructional and technical quality of this courseware package. Your comments—as user or reviewer—are valued and will be considered for inclusion in any future version of the product. Please address comments to:

MECC Software Development  
6160 Summit Drive North  
Minneapolis, Minnesota 55430-4003

# MECC Services

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Since its inception in 1973, MECC has remained committed to serving education by listening and responding to the diverse and changing needs of students and educators. MECC promotes effective learning by developing high-quality, curriculum-based software in all major subject areas and by making it affordable through a variety of purchase plans. Approximately one-third of the nation's school districts are enrolled in a MECC Membership Plan. MECC products can also be purchased on an individual basis directly from MECC or through authorized dealers nationwide. In addition to software products, MECC offers instructional management systems, multimedia products, and an annual technology conference. MECC respects the challenges faced by modern educators and pledges to remain on the cutting edge of technology.

- **MECC Memberships**

Educational institutions may become MECC Members, which qualifies them to obtain MECC products at specially reduced prices. To learn more about MECC Memberships, contact the MECC National Sales Center.

- **Site-License Products**

School districts or buildings may choose to purchase site-license products, with lifetime duplicating and networking privileges. For details, contact the MECC National Sales Center.

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MECC has the largest selection of network products on the market. If your district or school is using a network, or just considering one, call one of our network specialists for more specific information.

- **Lab Packs**

Most MECC programs are available in Lab Packs—sets of five disks with a support manual. With their special pricing, Lab Packs can provide substantial savings for those who use MECC programs with groups of students.

- **MECC Education Catalog**

The MECC Education Catalog describes hundreds of MECC instructional computing software products as well as multimedia hardware and software products. You can obtain a free copy of the catalog by contacting MECC Customer Services.

- **MECC Multimedia Catalog**

MECC also offers an assortment of name-brand multimedia hardware and software products—educational technology tools, including computer and video-projection equipment, videodiscs, LCD panels, and CD-ROM and peripherals.

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We stand behind our products. Try any MECC software for 30 days. If it fails to live up to your expectations, return it to us in its original condition, with proof of purchase, and we'll give you a full refund. For a period of 90 days after your purchase, MECC will replace free of charge any defective original disk, upon receipt of the disk and with proof of purchase. After 90 days, MECC will replace defective disks for a nominal fee throughout the lifetime of the product (i.e., for a period of three years following the product's discontinuation).

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If you have any problems using MECC software:

1. note the name and version number of the software;
2. note the brand and model of the equipment involved and the type of printer card if the problem involves a printer;
3. write or call MECC Technical Support (612/569-1678) to describe the problem.

**For information on all of the above items, use the MECC General Information telephone number, 612/569-1500. To fax your order to us, call 612/569-1551. Or you can mail your order or inquiry to:**

**MECC  
6160 Summit Drive North  
Minneapolis, Minnesota 55430-4003**

## **Q. Is it okay for schools to copy software?**

**A.** No, without the publisher's permission, it's not okay for schools to copy software. Software is protected by copyright law, which says that you can't make copies without the permission of the copyright holder. Copyright law is written this way to protect software programmers and publishers and the investment they've made in their products. The creative teams that develop the software — programmers, writers, graphic artists, content specialists, and others — all deserve fair compensation. Without the protection given by our copyright laws, they would be unable to produce the educational, entertainment and productivity software that adds so much to our daily lives.

### **Q. What exactly does the law say about copying software?**

**A.** The law says that it is illegal to make or distribute copies of copyrighted material, including software, without authorization. If you do so, this is piracy, and you may face not only a civil suit, but also fines of up to \$100,000 and jail terms of up to 5 years.

### **Q. So I'm never allowed to copy software for any reason?**

**A.** If a backup copy was not included in the box with your original disk(s), you are permitted to make one copy in order to have both a working copy and a backup copy of the program. Copyright law prohibits you from making additional copies of the software for any other reason without the permission of the software company. If the publisher has authorized any exceptions to the copyright law, they will be stated in the license agreements that accompany all software products.

### **Q. But aren't schools allowed to make copies for educational purposes?**

**A.** No. Like individuals and corporations, educational institutions are bound by the copyright law. Because of their unique position of influence, schools have a particular obligation to abide by the copyright law and educate students about their own responsibilities when using software. Just as it would be wrong to buy one textbook and photocopy it for use by many students, it is wrong for a school to duplicate software without the authorization of the publisher. This means that educators cannot make unauthorized copies for their students, either to use in school or to take home.

### **Q. At our school, we share programs all the time. We assume this must be okay, since the school purchased the software in the first place.**

**A.** Many educators are not aware of how the copyright law applies to them. Without the publisher's authorization to make copies, your school needs to purchase as many copies of a program as you will use. However, many software firms do offer special sales arrangements to schools. These include reduced priced lab packs (a number

of programs sold together) and site licenses (arrangements which permit schools to copy for a specific location at a fixed price). **Because these arrangements vary from publisher to publisher, it is essential that you read and understand the license agreement for each program before making any copies.**

### **Q. We're planning to install a network for our students. How do we know how many copies of software we'll need to purchase?**

**A.** Remember that the installation of a network does not change your obligations with regard to the copyright law. When purchasing software for a network, be sure to ask the publisher what types of licensing arrangements are available for networks. Some software publishers allow schools to purchase a network license that authorizes the school to install stand-alone software on a network. In addition, many software publishers create special network versions that license the program to be run on the file server of a network. Because some publishers limit the number of workstations that are permitted to legally access the software on the network, it is very important to check the license agreement for any restrictions that may apply.

### **Q. I've read the license agreement for one of the software packages purchased by our school. What if I'm not sure that I understand the arrangement correctly?**

**A.** If you have trouble understanding the license agreement, help is available. Your school district's media or computer specialist may be able to answer your questions. In addition, you can always contact the software publisher and ask for a clarification of the license agreement as it applies to your school. Finally, if you still have questions, contact the Software Publishers Association for more information about software and the copyright law.

### **Q. I'll bet most of the people who copy software don't even know they're breaking the law.**

**A.** Because the software industry is relatively new and because copying software is so easy, many people are either unaware of the laws governing software use or choose to ignore them. It is the responsibility of each and every software user to read and understand the license agreements of the products they use and to be sure that their software use complies with copyright law. See what you can do to initiate a software use policy statement in your school that everyone respects. Finally, as an educator, help set an example for your students that responsible computer users should be "software legal."

If you have any questions about how the copyright law applies to you and your school, please contact the **Software Publishers Association** at 202-452-1600.



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Thanks to MECC, teachers now have software they can recommend with confidence to the parents of their students. MECC Home Software is a special collection of some of MECC's best-selling and best-loved products. Kids and adults alike find these packages both entertaining and challenging. And each product has a variety of difficulty levels so that people of all ages and abilities can use it. That means MECC software can be used again and again for continual enjoyment.

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To order MECC Home Software, see your local dealer or call 612/569-1500.

