

THE CAPTAIN'S DOG

My Journey with the Lewis and Clark Tribe

Novel by Roland Smith

Exploration Unit by Craig Ericksen and Julie Sprague

January, 2000

Dear Colleague,

January 2000

I first met Roland Smith at a reading convention in Michigan, and within the next few hours, I bought all of Roland's books; within the next few weeks, I read them all and became a huge fan. I brought the novels to school and tried *Thunder Cave* last March with my seventh grade class. They enjoyed the book so much that we invited Mr. Smith to come to our middle school in Shepherd, Michigan, where he mesmerized the entire school. He was not only knowledgeable and interesting, but he was gracious to the students. This unit is a result of that meeting.

When Roland asked me to create a unit for *The Captain's Dog*, I knew it would have to be an integrated unit incorporating all core subjects and the arts. I also knew that I would need help.

I asked my colleague Craig Ericksen, an avid Lewis and Clark buff, to read the novel. He was immediately enthusiastic about providing the science and math portions of the unit as well as any historical insight he might have into Seaman's journey west.

An integrated unit, by nature, challenges teachers from three or four subject areas to drop their formal walls and work together to share a common theme, while addressing each area's goals and standards. The theme of this unit is Exploration, using the novel *The Captain's Dog* as the focus for the unit; thus, the title, *Exploration: The Captain's Dog*. The unit combines all areas of Language Arts--literature, reading, writing, speaking, listening, and viewing. Students will develop geography skills using the wall map and cartography explorations, which also cultivate many science and mathematics concepts, including the scientific process and mathematical problem solving. A learning experience with land values extends traditional math skills to include graphing, probability, and looking for patterns. Exploring flora and fauna found on the expedition conveys biological concepts. The formal speeches created by students, as well as the content of the novel itself, address historical benchmarks and standards. Students will practice research skills which will equip them to learn in all core areas as they explore and analyze the novel's diverse settings and characters. Many forms of technology are also embedded in this unit's activities.

We have tried to provide a variety of hands-on activities. Students engage in a tremendous amount of critical and creative thinking, and both Howard Gardner's Multiple Intelligences and Spencer Kagan's Cooperative Learning Structures are incorporated in this exploration unit. Authentic assessment is employed as students perform and create products throughout the unit.

Included in this unit are a student packet, instructor notes, and an appendix that has everything your students will need to explore this unit. Activities are applicable and enjoyable for students in fifth and sixth grades but could easily be used with fourth through eighth graders. The unit can take from four to twelve weeks, depending on the

length of class periods, the amount of homework you assign, the number of activities you complete, and the number of teachers working together.

I'll close by saying that if you get a chance to invite an author to your school, you will never do better than Roland Smith. Give him a call or e-mail him with your request.

Working With You,

Mrs. Julie Sprague

P.S. If you ever have any questions, please feel free to email one of us.
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Instructor Notes

Anticipatory Set - Before book begins and throughout novel

Students can begin exploring by creating a giant wall map of Seaman's journey west. Using the map from the novel as an overhead, students create a map on a large bulletin board or a wall. Several students can take turns drawing lines, labeling the map, and copying the legend. At the same time, other students can search websites and other reference materials for pictures (current or historical) of the territory through which Lewis and Clark traveled and for pictures of the Indian tribes with which the group traded. Students can download these pictures or draw their own. If your class is anything like ours, you have some promising artists in the group. Take advantage of these students' abilities! While the mural-map is being created, talk about the trip of Lewis and Clark and share a little about the book you are going to read as a class. After you begin reading *The Captain's Dog* with students, ask them to record on the map other information, such as identifications of the flora and fauna found at each site. It is vital to make this a whole-group activity. Identifying students' strengths and opportunities using a Multiple Intelligence Survey will enable you to find the right role for each student. Have students respond to the Multiple Intelligence Information in the appendix. If students get frustrated with their mapmaking or need an incentive to delve more deeply, Mr. Smith's website (www.rolandsmith.com) has pictures and interesting information about the journey.

Exploration Journal - Before book begins

Students should use paper grocery sacks and leather shoestrings to create authentic-looking journals in which they can record much of their work. A materials list and a how-to guide are included in the appendix.

Vocabulary - Throughout novel

The Captain's Dog has two types of vocabulary to explore: technical and sophisticated. Ask a student to make a large chart of technical vocabulary words and their definitions and place it beside the wall map of Seaman's journey west. Students will use Teams, Games, and Tournaments (TGT) to learn as many of the sophisticated words as they can and test their skills in a cooperative learning game. Everything students need to complete the TGT Vocabulary Game is included in the student pack and the appendix. Home team groups should be heterogeneous, while the competitive triads are homogeneously grouped. I like to play the game three times throughout the unit: one-third of the way through the book, two-thirds of the way through, and at the end of the novel.

Author's Craft: Figurative Language - Throughout novel

The rich vocabulary in *The Captain's Dog* is complemented by an array of figurative language. Share a quick review of the four types of figurative language -- metaphors, similes, expressions, and imagery -- that students will explore. In this exploration, students are given a list of examples of figurative language and asked to place each in one of the four categories. Students

are then encouraged to find and record examples on their own. I have not included a key, since categories of figurative language can be shaded. You will need to be flexible and complete this assignment with your students.

Elements of Literature: Characterization - Throughout novel

I would be remiss if I did not include a character analysis of Captain Meriwether Lewis. Roland Smith shares so many wonderful direct and indirect descriptions of this legendary figure that students will soon feel as if they've known the Captain all of their lives. Seaman's observations and explanations enable readers to master the art of characterization within one novel.

Students will work in a cooperative learning structure entitled Write-Pair-Share. One student in each pair should note a passage that indirectly and/or directly describes Captain Lewis; then, the second student in the pair will write his/her interpretation of the passage's meaning on the Characterization worksheet. The pairs switch roles each time they come to a new description. Students' work can be identified as each student writes in a different color of ink and notes this by writing his/her name in the appropriate color at the top of the page.

Elements of Literature: Point of View - At completion of the novel

Roland Smith likes to say that this book is not written in "first person," but rather in "first canine," for a dog is our storyteller throughout the Lewis and Clark expedition. While Seaman is our narrator for this exploration, he also shares bits of commentary about the crew, the landscape, the other animals, and the adventure itself. In addition to Seaman's narration, the short diary accounts from Captain Lewis allow readers to enjoy the best of both worlds -- fact and fiction -- in this historical novel. *The Captain's Dog* is a perfect vehicle for exploration of literary point of view if we ask students to explore a series of questions such as:

"What about the other people in the novel?"

"How do you think they felt?"

"What do you think they thought?"

"What types of things would they have shared if they were narrating the story?"

Ask each student to choose a character other than Captain Lewis or Seaman to research; then, in the authentic-looking journals they have created, have students rewrite a part of *The Captain's Dog* from their chosen character's point of view. (See student pack for a list of characters and sections of the book from which students may choose to complete this assignment.) Instruct students to use technical and sophisticated vocabulary, as well as figurative language, in their journal writing.

Research - Throughout novel

Students will choose one of the Native American tribes mentioned in the book to research and then share with the school community in a Living Museum exhibit at the Exploration Evening described below. Students are asked to locate information related to four specific categories and

are encouraged to note other interesting and important information. I usually give students four to five days to locate resources which they think might contain useful information. Try using the "eight-minute research method" described in the appendix as students actually record information. Even if students are already familiar with a different research method, I encourage you to have them try the eight-minute method, for variety's sake.

The Speech - Throughout novel and upon completion of novel

Students will act as speech writers. Lewis and Clark would have had to present their research in a formal speech for President Jefferson. Groups of five students will review and summarize different sections of the novel as it is read, collecting data to use in their combined speech. Everyone can contribute to what is included in the speech, but each member of the group is assigned one section to create. A suggested section breakdown is included in the student pack. I suggest that you do not force a group to present its speech unless all group members are willing. It might be fun to have two teachers and/or parents dress in simple costumes and read the speeches at the Exploration Evening.

Culminating Activity

Invite students, parents, teachers, and community members to an Exploration Evening. This important event can be held in your classroom or in the school's gym or auditorium. The mural map and all of the students' work should be focal points; beyond this, encourage the students to decide how the room should look. The living museum exhibits could be set up in one end of the room, with students' exploration journals in one corner and zoological markers and pictures of the animals in another. Tribal music could be playing, and tribal food could be available to taste. I suggest that you involve several parents in the planning and execution of the evening. Don't forget to take pictures and to get the local paper and television stations to come out and recognize the invaluable knowledge your students have gained.

Land Prices

Students will compare the price of land in three states (Iowa, Kansas, and Nebraska) which make up much of the territory through which Lewis and Clark journeyed. They will create graphs of land prices over time in each state, and another graph which combines information from the three states. Note: Students may have difficulty creating graphs that clearly represent the wide range of land prices over the past two hundred years. For example, in 1803, the price of land in Iowa was about 3 cents per acre, but in 1980 an acre of land in Iowa cost \$1548. Possible solutions to this problem are to produce separate graphs for the 19th and 20th centuries or to use large poster board for the graphs.

On the finished graphs, it will be apparent that, during certain decades, all three states experienced rapid increases or decreases in land prices; also, students should notice that the price of land in the state of Iowa is consistently higher than that in the other two states. When students explore the times during which the greatest fluctuations occur, they will find that these are concurrent with major historical events such as World Wars or times of widespread

economic turbulence. As students explore environmental factors which may explain the difference in price between land in Iowa and that in Kansas and Nebraska, they will discover that Iowa is in a different biome than are the other two states. Both the historical discoveries and the scientific discoveries set the stage for a discussion regarding the power of mathematics as a tool for understanding the world. A full scale exploration of each of these discoveries may lead to several extension activities. Be flexible -- allow students to direct their own learning!

Inflation

Students will study inflation by determining the prices of equipment and provisions taken by Lewis and Clark on their expedition, and by contrasting this data with current prices of comparable items. Students can research changing prices by going to grocery stores, visiting camping and hunting supply stores, and exploring catalogs and newspaper and magazine advertisements. Military recruiters will be happy to provide information about the pay in today's military. You and your students should discuss the quality of equipment that Lewis and Clark were likely to bring for an expedition that they estimated would last 1.5 years (the actual duration was about 2.5 years). As a result of this discussion, students should conclude that the explorers were likely to have supplied themselves with equipment of the highest quality available. The items listed on the worksheet represent just a few items of the thousands of pounds of equipment brought on the trip. The typical expedition member, a private serving the expedition for 33 months, was paid a total of \$166.67. Sergeants serving for the duration earned as much as \$278.50. The men also received some non-monetary compensation (challenge your students to find references to this compensation in the book). By calculating the percent of change in prices and in pay, students can gain a sense of inflation and of the relative buying power of a person today and in 1803. Calculation of actual inflation is a complex process which you should not expect from your students. Information about inflation can be obtained from the [Statistical Abstract of the United States](#) and the [Historical Reference of the United States](#). According to those two documents, \$100 in the year 1967 is equal to \$45 in 1803, and \$33.40 in the year 1967 is equal to \$140.30 in 1992.

Map Making

In *The Captain's Dog*, there are several references to Captain Clark's measuring, surveying, charting, and mapmaking. This activity challenges students to try their hands at mapping their own school grounds. Students will need some basic information and materials, and a method for determining distance. Two simple methods are to use a pre-measured length of string or to count the number of paces it takes them, walking with a normal stride, to walk a known distance, such as one lap on the school track.

In addition to devising a strategy for measuring, make sure that students know how to use compasses to determine cardinal directions. Remind students that they must not be in the vicinity of metal objects while using compasses.

I recommend that students begin by pacing off the outside dimensions of the entire school grounds and draw this information on their map-making worksheets. Next, they can pace off the dimensions of the school building and the distance from the building to the closest boundaries of

the school grounds. All information should be transferred to the worksheet as it is obtained. Once this basic information is sketched on the worksheet, students can determine any additional data you may require. Each student should provide a legend to explain the scale and symbols used on his/her map.

If possible, obtain the true dimensions of your school grounds, and compare this information with the measurements that your students obtain. Lewis and Clark missed the true distance of their trip by less than 10%; how did your students do? Upon completion of students' maps, point out on your classroom map Lewis and Clark's trail from the Mississippi River to the Pacific Ocean. Discuss with students the difficulties that might be experienced in trying to map this region while traveling in excess of 20 miles per day. Lewis and Clark used some surveying techniques in producing their maps. If time permits, invite a surveyor to speak to your class, and encourage students to compare today's surveying methods and equipment with those of the early 19th century.

In My Yard

Lewis and Clark sent many specimens back to President Jefferson, who was one of the leading naturalists of his time. Students should make drawings of plants they find in their own yards and/or neighborhood parks, and bring specimens to class. Students may be surprised to learn that many lawns include ten or more varieties of plants. Encourage them to look closely at details of leaves or needles. Numbers of needles per cluster and length of needles can be used to differentiate between pines that might seem to students to be of the same type. Similarly, various types of oaks and maples can be distinguished by leaf characteristics.

Animal Discoveries

Upon discovering animals, Lewis and Clark referred to them by whatever terms seemed most appropriate at the time. In *The Captain's Dog*, this style is maintained. As students come across these references in the book, they should record them on the Animal Discoveries sheet. Students can enjoy the challenge they face in attempting to learn the scientific and common names for these animals. The Audubon Society Field Guides are wonderful for this activity and can serve as excellent resources for students as they create zoo display signs for the animals of their choice.

Daily Weather

Students should collect data on local weather conditions on a regular schedule, such as two or three times per day. Volunteers can be used to collect this information during the weekend. The students should record their data on a poster board graph for a classroom display. As a long term project, students can compare their data with information they find about their home biome. By going to the National Weather Service (NWS) website (<http://www.nws.noaa.gov/>), students can record weather information for sites along the route of Lewis and Clark, and can then make comparisons between climates. If your school is located far from the northernmost areas that Lewis and Clark visited, interesting discussions can arise regarding the harsh conditions that the

expedition endured during the winter. The NWS site provides a number of links that can be followed to provide many types of weather experiences, explorations and projects. Be flexible, and encourage your students to explore!

Student Pack

TGT Vocabulary

There is a great deal of luscious vocabulary in *The Captain's Dog*. You will be placed on a Home team in which you will work with other students to understand the meanings of the vocabulary words; next, you and your classmates will be reassigned to competitive triads to earn points for your Home teams.

Home Team Requirements:

Use the methods described on the bookmark which your teacher gives you to help all members of your Home team learn the vocabulary words. You will have five 30-minute classroom sessions to learn the words, but if you want to be proclaimed Vocabulary Champions of the World, you may have to spend some time practicing at home, before and after school, or at lunch. Don't forget to create a name for your team.

Competitive Triad Requirements:

You will play a total of three games during the unit in order to earn points for your Home team. The members of the competitive triad compete for numbered cards that are connected to the vocabulary words. Each card you earn is worth a point for your Home team. The more vocabulary words you know, the more points you will earn for your Home team.

Double Your Home Team Points

Without advance warning, your teacher may ask each member of the class to write fifteen sentences using any of the vocabulary words your Home team has learned, without looking up the meanings of the words. If all members of your team can complete the sentences, your team will double its points. There will be two opportunities during the unit to double your Home team's points.

Triple Your Home Team Points

Without advance warning, your teacher may ask each member of the class to write a complete paragraph of 5-8 sentences, using at least five of the vocabulary words. Each member of your Home team must use different vocabulary words in his/her paragraph to triple the team's point value. There will be only one chance for your Home team to triple its points. The team will determine in advance which words each member will use in his/her paragraph.

Author's Craft: Figurative Language

Now that you have reviewed four types of figurative language -- similes, metaphors, expressions, and imagery -- try to match the following examples to their probable forms (see next worksheet). Page numbers are given so that you can check the language in its original context. Next, try to find at least two more examples of each type on your own as you read the novel.

EXAMPLES:

<u>Page</u>	<u>Figurative Language</u>	<u>Page</u>	<u>Figurative Language</u>
13	easy keeper	119	hung his gray head
14	cut of his jib	121	like hot tree pitch
16	like a hungry gull after a minnow	122	his luck has run out
32	angry flame inside and quenched it with the juice deep in his belly	135	like a blowfly on a windowpane bald face lies
36	stem the flow	140	was deafening
38	stark, lonely beauty of it	157	deaf to their logic
43	sun melted the morning fog	165	<i>Slice...Slice...Slice</i>
45	as the fire consumes the grass of the plains	172	a single tear
69	Grim Reaper	179	it was to no avail
72	surly indifference	190	at bay
74	barrage of choice words	192	change of heart
78	a fatal dance	208	food became a distant memory
79	like a wolf and prey on his mind with poisonous words	245	whales made salmon
88	cold descended		look like fleas
110	quickened our blood	246	his feet under him

Figurative Language Examples you found:

<p>SIMILES</p>	<p>EXPRESSIONS</p>
<p>IMAGERY</p>	<p>METAPHORS</p>

Figurative Language Match

Elements of Literature Direct and Indirect Characterization

There are many characters portrayed in *The Captain's Dog*. Seaman shares so many of his friends and enemies with the readers that we get to meet many interesting people. Especially, readers gain a close look at Captain Meriwether Lewis. Seaman directly shares information about Captain Lewis; for example, on page 14, he tells us that the Captain was tall and had brown hair. Seaman also shows us indirectly who Captain Lewis is by sharing certain events in the life of the Captain. For example, when Captain Lewis buys Seaman from the greedy sailor and then chooses not to put a rope on his new dog, the event shows the reader that Captain Lewis is trusting and compassionate. There are many examples, both direct and indirect, that help the reader discover who Captain Meriwether Lewis really is. On the attached worksheet are a few examples. Work with a partner to locate as many other examples as you can while we read through the novel. One of you should note the page number and label the event "D" for "direct" or "I" for "indirect," while the other student, using a pen with ink of a different color, interprets the meaning on the right-hand column of the page. Please write your names at the top of the page so I know whose pen is whose.

Point of View

Roland Smith likes to say that this book is not written in "first person," but rather in "first canine," for Seaman is our storyteller. What if we could find journals from different sections of the novel written by different characters? What would they have to say about some of the events in the story? Choose one of the characters listed below and, in your Exploration journal, rewrite the chosen section from his/her point of view. Your rewrite should include the date, the use of technical and/or sophisticated vocabulary, figurative language, and a signature from the character who "wrote" the entry.

Page 69 - Pvt. Shannon
Page 114 - Colter
Pages 155-159 Captain Clark
Pages 200-203 Sacagawea

Page 71 - Black Buffalo
Page 128 - Droulliard
Page 182 - Shields
You choose a person and section

Characterization - Direct and Indirect

Page No./Excerpt and D/I – What even shows about Captain Lewis?

Page 14 - D

rugged, gentleman, tall, handsome, brown hair, intelligent, sharp eyes that try to hide a sadness

Page 18 - “two chiefs lead as one” - I

cooperative; good leader, not big boss

Page 19 - pulled the knife and stuck the blade in the cliff face to stop the fall - I

quick thinking, clever, brave

Researching Native Tribes

Lewis and Clark were not only searching for the shortest route from the east to the west; they were on a mission to make peace with the many Native tribes with which they came into contact. Several tribes are mentioned in the novel, but further investigation is needed to truly understand each group of people.

Choose one of the tribes mentioned in the novel: Nez Perce, Yankton Sioux, Oto, Missouri, Omahas, Teton Sioux, Arikara, Mandan, Hidatsa, Cheyenne, Shoshone, Flathead, Blackfeet, Clatsops, Chinooks. Focus on the following four areas in your research, but include any interesting or important information that may not fit into one of these areas.

1. Survival Needs -
food, clothing, shelter; current tribal survival needs
2. Aesthetic Needs -
arts, crafts, music, dance
3. Spiritual Needs -
values, ceremonies, traditions
4. Family Needs -
leadership, children, rites of passage, elderly, extended family

Section off ten pages in your exploration journal, labeling eight of the pages with the above headings (two pages per heading). Label the last two pages "Other Important and Interesting Information." Use the 8-minute research method which your teacher will describe to record information after you have collected the materials you need.

The information you are collecting will be used to create a living museum exhibit. Your exhibit will help others learn more about the native tribes Lewis and Clark encountered on their trip west. Locate four other students who chose the same tribe you did, and combine your research.

Your group must design a display, create a hands-on activity, and share written and oral information with museum visitors. Each of you will be assigned a few letters of the alphabet, and you will be responsible for researching any topics related to your chosen tribe which begin with those letters. You are primarily responsible for the letters you are assigned, but you should help everyone in your group locate and create information for your group's exhibit.

The group will have seven days to organize and create its exhibit. If you want to have a quality presentation, some work will have to be completed before school, after school, or at home.

All work will be displayed for the rest of the class, other students, and the community during our Exploration Evening. You must include a resource sheet so participants will know where your information came from. Refer to the Living Museum rubric for specific requirements.

The Speech

Seaman’s adventure is over, but there is a finale to this historic exploration. Captains Lewis and Clark had to present their information to President Jefferson in a formal speech. What do you think they said? What important new ideas were they able to share with their president? What interesting new findings did they show President Jefferson? We know what at least one of their maps looked like, as well as some of their pictures and drawings, but we don’t know what they actually told the President.

Work in “A Circle of Knowledge” structure to collect data as you read through the novel. The circle works like this: five members work together to pool knowledge so that no one person has to examine and remember the whole book. Each member of the circle will have a section of the novel to review and record important and interesting information. Everyone in your circle can, and should, contribute to each section assigned, but ultimately each person is responsible for his/her own section. It will be very helpful for your group to sit together as the book is being read.

Based on the list below, decide which section each member of your circle will complete. In your Exploration Journal, keep an outline, a list, or a web of what happens.

Sections

One - pages 1 - 57

Four - pages 160 - 216

Two - pages 58 - 100

Five - pages 217 - 283

Three - pages 101 - 159

Using the information your circle collects, you will work together to write one speech for Captains Lewis and Clark. Be sure to indicate which man will orate which section of the speech. Don’t forget that both men would probably want to include some of the pictures, maps, and specimens that they created or collected on their journey. If all members of the group agree, you may share your group’s speech at our Exploration Evening.

Land Prices

Average prices, in dollars, per acre of agricultural land.

YEAR	KANSAS	IOWA	NEBRASKA
1803	0.03	0.03	0.03
1810			
1820			
1830			
1840			
1850		7.87	
1860	6.89	14.67	6.00
1870	12.77	31.92	12.00
1880	10.89	29.15	11.00
1890	18.53	36.10	19.00
1900	15.45	53.06	19.00
1910	40.05	82.58	47.00
1920	62.30	227.09	88.00
1930	48.56	124.18	56.00
1940	29.51	78.79	24.00
1950	66.00	161.00	58.00
1960	101.00	254.00	89.00
1970	159.00	392.00	154.00
1980	587.00	1,548.00	635.00
1990	462.00	947.00	530.00

Plan and construct a graph for each of the states in the table above and another graph for all three states combined, representing the above data on one axis.

Record and explain any patterns that you notice.

Explain why you think these patterns occur.

Compare and contrast changes in land value over time in each of the three states.

List several environmental factors that might affect the value of agricultural land.

Do some research on Kansas, Nebraska, and Iowa related to the environmental factors that you listed above. Based on your research, explain why you think that land prices in these three states compare the way they do.

Research some of the decades during which the greatest changes in land prices occurred in these three agricultural states. Describe some of the important historical events that occurred during these decades.

Inflation

Lewis and Clark brought several thousand pounds of supplies on their trip. Listed below are a few of the items and their costs in 1803. Each of the items was of the best quality available. Do some research: how much would it cost to buy each of these items (top quality) today? By what percent did each of these prices change?

ITEM	1803	NOW	% Change
3 Pocket Compasses	\$7.50	_____	
Geology Reference Book	\$5.00	_____	
Gunpowder (176 Lbs.)	\$155.75	_____	
Dried Soup (193 Lbs.)	\$289.50	_____	
6-inch Pocket Telescope	\$7.00	_____	
Monthly pay (each Private)	\$5.05	_____	

Could a Private in the Army buy more or less today than he could in 1803? Explain why you think that your answer is correct.

Why did the prices of some of these items change more than the prices of others?

William Clark made maps of the expedition's entire two-and-a-half-year trip. Among the geographic features he mapped were the Missouri and Yellowstone Rivers, the Columbia River, and many features of the Rocky Mountains. This activity challenges you to make a map of the grounds around your school building. Your map should accurately show the positions of all major features of your school (e.g., playground equipment, fences, buildings). Use pace counts, meter sticks, or measured pieces of string to determine distances. Use your Exploration Journal to help you keep track of all of your information until you can make your final map in class. On your map, you must make a legend which identifies the symbols that you use to represent each of the features on the map. The legend must also show the scale of the map. Examine some of the maps in your classroom to give you some ideas about map features and how to make the legend.

Get started:

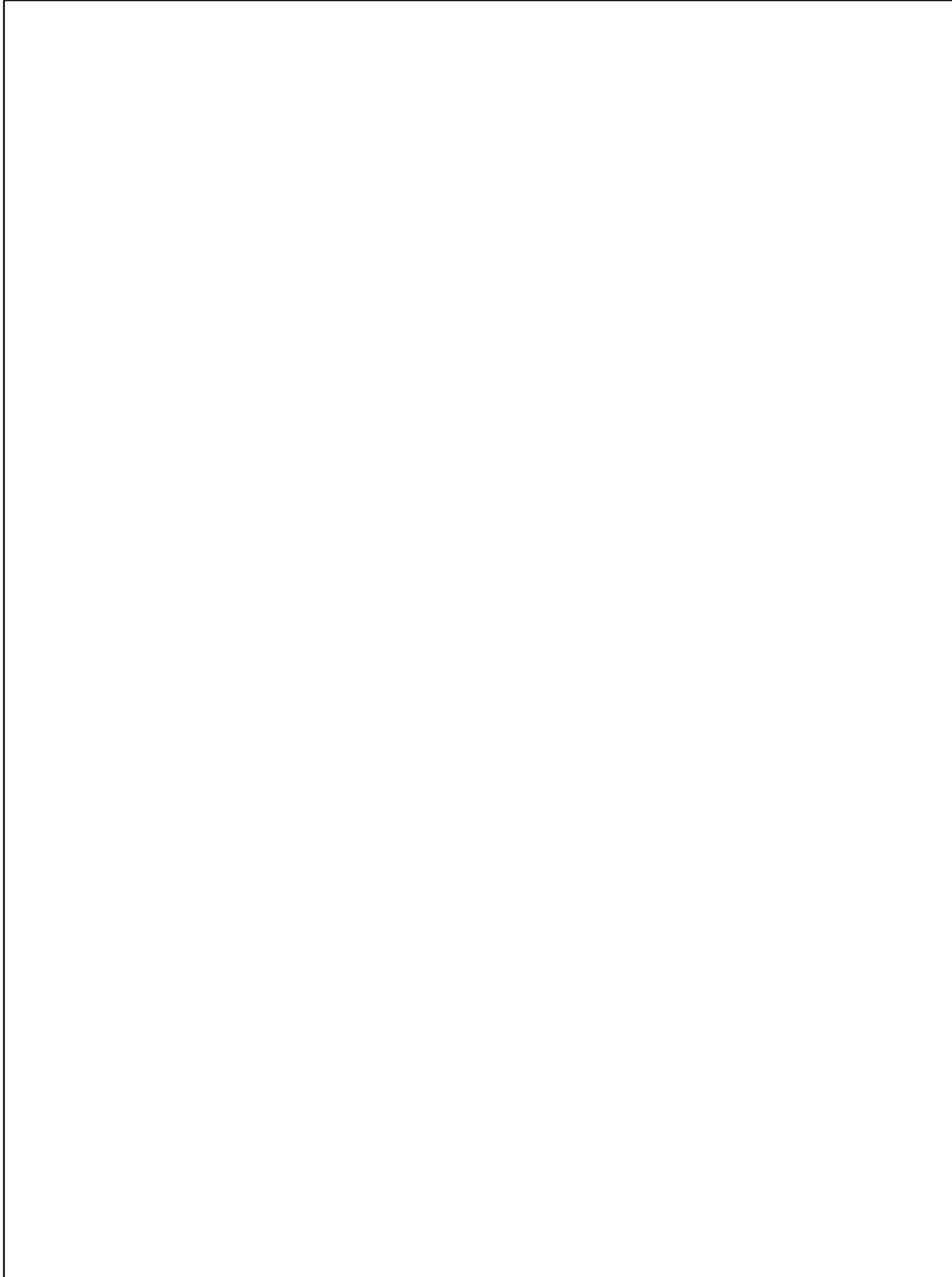
HINT: As you collect data, draw the information on your map-making worksheet.

1. Locate due north, south, east and west
2. Measure the dimensions of the boundaries of the school grounds
3. Measure the dimensions of the school building
4. Measure the distances from the school to the boundaries of the school grounds

Once the boundaries, school building and cardinal directions are on your worksheet, you are ready to add details. Enjoy!

Map-Making Worksheet

Use this form to sketch a draft of your map, showing the distances, sizes and positions of each feature of your school grounds.

A large, empty rectangular box with a thin black border, intended for students to sketch a draft of their school grounds map. The box is centered on the page and occupies most of the lower half of the worksheet.

In My Yard

Lewis and Clark were assigned to list and describe all of the plants and animals that they found in the areas they explored. In most cases, they included drawings of what they found, and they also saved many specimens. The Lewis and Clark expedition described 178 types of plants and 122 species and subspecies of animals.

What can be found in your yard or a nearby park? Make a list of all the different types of plants that can be found in your own yard. The explorers described each of their discoveries. Try to list and describe as many different kinds of plants (at least ten) as you can. Explore your yard carefully. Search for the most interesting plants that you can find. Include a description of each plant’s size, stem, any flowers, fruit/seeds, whether it keeps or loses its leaves, and possible ways it could be used. Use the chart below to record your findings.

Size _____

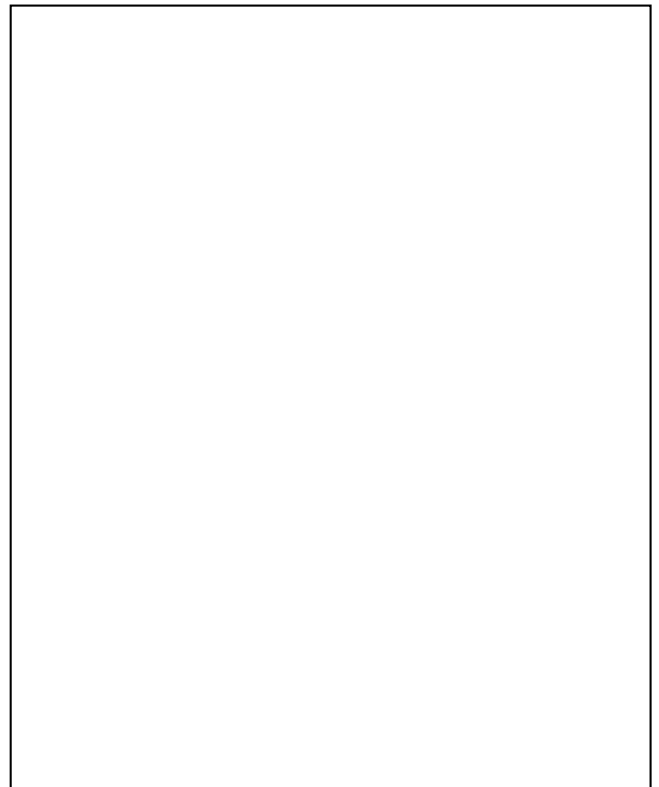
Size and shape of leaves

Stem

Seeds

Uses

Other features



Drawing

Size _____

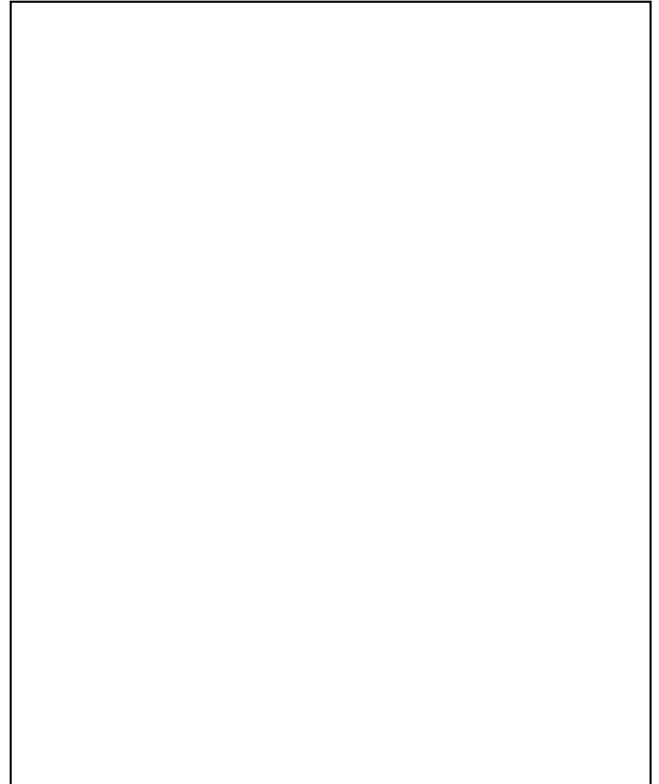
Size and shape of leaves

Stem

Seeds

Uses

Other features



Drawing

UNIT APPENDIX

Technical Vocabulary

Page	Word	Definition
8	flora	flowers/plants
8	fauna	animals/wildlife
8	terrain	land and sea
10	scouting	trained observing
10	pirogues	canoes
11	whelped	gave birth to puppies
26	ration	shared supplies
36	parley	trade
36	keelboat	boat with oarsmen, square back and small sleeping quarters
111	tallow	liquid fat
117	squall	brief, violent storm
134	esponoon	tripod for gun
156	dismantle	take apart
187	blunderbuss	muzzle gun
238	estuary	the mouth of a river

10	meandered	walked slowly
11	dilapidated	broken down
11	moored	fastened/secured
13	gist	main point
15	paltry	small amount
15	despised	hated
19	precarious	risky/uncertain
19	gingerly	lightly/carefully
20	serenaded	sang softly to
20	intimidated	threatened
21	reprobate	criminal
23	brigands	robbers
30	prevail	overcome
30	fatigued	physically tired
32	shirking	neglecting
33	braying	donkey sound
37	dearth	shortage
37	ramble	travel without a specific destination
38	stunned	shocked/surprised
38	vast	huge
42	donning	putting on
45	obliged	avored
46	engrossed	interested
47	dawdle	waste time
49	skedaddled	ran away
54	vigor	energy
54	stamina	strength and energy
56	commenced	started
56	pardoned	forgiven
57	jeopardized	put in danger
58	ailments	sicknesses
62	dispirited	saddened
65	revulsion	disgust
72	saturated	filled with water
74	harangued	shouted
76	cur	stray dog
77	contrary	opposite
78	oppressors	cruel rulers
80	recant	change or take back
97	inordinate	out of the ordinary

98	uppity	prideful
102	foraging	searching
115	formidable	superior/awesome
125	confounded	confused
126	clamber	crawl/climb
126	veered	turned sharply
134	melancholy	sadness
135	overwrought	tense and nervous
135	sheepish	quietly embarrassed
137	cache	hidden supply
140	precipice	edge of a cliff
141	sublime	wondrous
141	renderings	drawings
157	berating	scolding
161	pummeled	beat
161	immense	large
175	dire	very serious
188	discourse	speech
191	undeterred	unchanged
194	devour	eat
195	deception	lies
196	balked	hesitated
205	irony	difference between what seems and what is
213	forlorn	sad
217	compensated	paid what was owed
231	chastened	scolded
237	unscathed	not hurt
244	hankering	desire
245	zest	enthusiasm
245	flustered	surprised and embarrassed

TGT Questions

1. meandered - 13
2. dilapidated - 28
3. moored - 35
4. gist - 49
5. paltry - 54
6. despised - 67
7. precarious - 20
8. gingerly - 7
9. serenaded - 29

10. intimidated - 38
11. reprobate - 48
12. brigands - 56
13. prevail - 66
14. fatigued - 19
15. braying - 26
16. shirking - 34
17. dearth- 8
18. ramble - 41
19. stunned - 52

20. vast - 60
21. donning - 57
22. obliged- 6
23. engrossed- 23
24. dawdle - 37
25. skedaddled - 43
26. vigor- 12
27. stamina - 51
28. commenced - 58
29. pardoned- 14

30. jeopardized - 30

31. ailments - 45

32. dispirited - 53

33. revulsion - 61

34. saturated - 68

35. harangued - 5

36. cur - 70

37. oppressors - 17

38. contrary - 32

39. recant - 44

40. inordinate - 55

41. uppity - 63

42. foraging - 3

43. formidable - 22

44. confounded - 9

45. clamber - 42

46. veered - 62

47. melancholy - 11

48. overwrought - 25

49. sheepish - 33

50. cache - 50

51. precipice - 59

52. sublime - 15

53. renderings - 27

54. berating - 39

55. pummeled - 47

56. immense - 65

57. dire - 21

58. discourse - 16

59. undeterred - 31

60. devour - 1

61. deception- 40

62. balked - 64

63. irony - 4

64. forlorn - 18

65. compensated - 36

66. chastened - 46

67. unscathed - 69

68. hankering - 2

69. zest - 24

70. flustered - 10

TGT Answers

1. eat
2. desire
3. searching
4. difference between what, seems, and what is
5. shouted
6. favored
7. lightly/carefully
8. shortage
9. confused
10. surprised/embarrassed
11. sadness
12. energy
13. walked slowly
14. forgiven
15. wondrous
16. speech
17. cruel rulers
18. sad
19. physically tired
20. risky/uncertain
21. very serious
22. superior/awesome
23. interested
24. enthusiasm
25. tense and nervous
26. donkey sound
27. drawings
28. broken down
29. sang softly to
30. put in danger
31. unchanged

32. opposite
33. quietly embarrassed
34. neglecting
35. fastened/secured
36. paid what was owed
37. waste time
38. threatened
39. scolding
40. lies
41. traveling without a specific destination
42. crawl/climb
43. run away
44. change or take back
45. sicknesses
46. scolded
47. beat
48. criminal
49. main point
50. hidden supply
51. strength and energy
52. shocked/surprised
53. saddened
54. small amount
55. out of the ordinary
56. robbers
57. putting on
58. started
59. edge of a cliff
60. huge
61. disgust
62. turned sharply

- 63. prideful
- 64. hesitated
- 65. large
- 66. overcome
- 67. hated
- 68. filled with water
- 69. not hurt
- 70. stray dog

Eight-Minute Research

Students...

1. choose two resource materials to read and record from.
2. prepare the note-taking section of their journals with headings
3. select the segments from which they want to read and record.
4. just read (no writing) for the first three minutes.
5. close the book and record facts they remember under their appropriate headings for two minutes.
6. check back and forth for ideas they missed, correct spellings, specific words they want to use, etc. for the next three minutes.

7. complete several more eight-minute research sessions directed by the teacher in blocks of time for the next three to four days. For example: 45-50 minute class periods can have five 8-minute research blocks with a five- or ten-minute break/stretch session in the middle of the period.

Students' time is carefully directed in this method, and most students note four to eight bits of information during each eight-minute session. Two or three more days are usually needed for students to clean up their research by filling in holes using a different research method. The eight-minute method essentially eliminates verbatim copying of research materials.

Students can then take their information and create a multiple intelligence task that best represents what they know and can do.

Exploration Journal

Materials: Large paper sacks from a grocery store: most places will still give them to teachers; alternatively, ask students to bring them in.

Various shades of brown crayons - each student will need two of the same color
Kleenex or paper towel

Buff or pale yellow paper - 25 sheets per student

12 inch leather/rawhide shoe string for each student

Directions:

1. Cut two pieces out of the sack which are a little bit bigger than the 8x11 paper

2. If there is writing or a store logo on the bag, use the inside of the bag as the outside cover of the journal
3. Color the **entire** outside with crayon, pressing **hard**
4. Blend crayon using Kleenex or paper towel until surface appears shiny
5. Crinkle up sack to make "age" lines, and then smooth it out.
6. Use the two pieces as covers for the paper, creating a leather-look journal
7. Punch two holes about two inches apart near the side-center to bind the journal
8. Feed leather/rawhide cord through; tie in a French knot on top of the journal
9. Your Exploration Journal is now ready to use!

EXTENDING VOCABULARY

SAY IT

Say the word and meaning five different ways: loudly, softly, with anger or surprise, compassionately, slowly, quickly, etc.

WRITE IT

Write the word and meaning four different ways: bubble letters, all capitals, all lower case, script, calligraphy, block letters, etc.

RELATE IT

Relate the word and/or meaning to another word or concept you know. Try to remember a situation in which the word or its meaning have been used or could have been used.

PICTURE IT

Can you draw a picture of it, or something associated with it? If the word and meaning were in a Pictionary game or Win, Lose, or Draw, how would you share it so your partner could guess what it was?

ACT IT

Can you demonstrate the word as if you were playing Charades? Can you act out the word so your partner can guess what it is?

EXAMINE IT

Examine the word and its meaning using all your decoding skills. What is the root word?

Does it have a prefix or a suffix? How many syllables does it have? What types of vowels are in the word? Does it have any blends or silent letters? Where is the stress placed?

SENTENCE IT

Use the word in a sentence and then see if the sentence makes sense by comparing the word's meaning with the meaning of the sentence. Can you use a synonym with the same meaning in place of the word?

Suggested Readings

General Reading

Ambrose, Stephen (1997). **Undaunted Courage: Meriwether Lewis, Thomas Jefferson and the Opening of the American West.** New York: Simon & Schuster. ISBN 0-684-82697-6

Lavender, David (1988). **The Way to the Western Sea: Lewis and Clark Across the Continent.** New York: Anchor Books. ISBN 0-385-41155-3

Books for Those Caught by the Bug and Wanting to Retrace the Steps of Lewis and Clark

Olmsted, Gerald W. (1986). **Fielding's Lewis and Clark Trail.** New York: Fielding Travel Books.

Duncan, Dayton (1987). **Out West.** New York: Penguin Books. ISBN 0-14-00-8362-6

Books Related to Specific Aspects of the Lewis and Clark Expedition

Allen, John Logan (1975). **Lewis and Clark and the Image of the American Northwest.** New York: Dover Publications, Inc. ISBN 0-486-26914-0. Explores the mapmaking aspects of the Lewis and Clark Expedition.

Cutright, Paul Russell (1969). **Lewis & Clark: Pioneering Naturalists.** New York: Bison Books. ISBN 0-8032-6334-1.

Chouinard, E. G., M. D. (1979). **Only One Man Died: The Medical Aspects of the Lewis and Clark Expedition.** Washington: Ye Galleon Press. ISBN 0-87062-128-9

Periodicals

We Proceeded On

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