

# Classroom Spice

Volume 7, Issue 1 Dr. Jeanne Mather, Editor

December 2004

## Science Takes a Back Seat

## The Unofficial Members of the Corps of Discovery

Americans often assume that the Lewis and Clark Expedition was initiated as a scientific endeavor. While Jefferson himself was an avid scientist, he knew that promoting the scientific interests of the expedition would seal its doom. Thus, while scientific fact finding was one purpose of the expedition, Jefferson sold the expedition to the Congress by focusing on its diplomatic mission relating to the Indian nations and solidifying the government's role in the fur trade.

It is important to recognize that much of the science discovered by Lewis and Clark was already part of the Native American knowledge base. What may have been new to the White Man was not new to the Native Americans.

It is also very interesting to realize that while Meriwether Lewis, Thomas Jefferson's personal secretary, was a wilderness woodsman and a natural military leader, he was *not* a scientist. He was responsible for describing and collecting plants, animals, rock specimens, and detail mapping of the new territory. How did Lewis manage to do such an incredible job? Jefferson asked the science community to train Lewis. Lewis spent a month in Philadelphia cramming in courses on botany, zoology, geology, chemistry, natural history, medicine, navigation,

(Continued on page 3)

As is well-known, America is celebrating the Lewis and Clark Expedition's bicentennial over several years, 2003-2006. President Jefferson secretly asked Congress on January 18, 1803 to appropriate \$2,500 to fund the exploration of areas along the Missouri and Columbia Rivers. (Note that the expedition eventually cost \$38,000.) Why secretly? Well, at that time the land still belonged to France. It was not until April 30, 1803 that the United States signed the treaty for the Louisiana Purchase (820,000 square miles in all). May 1804 saw the start of what is often called "the greatest camping trip of all time." While the numbers vary depending on the source, the Corps of Discovery was made up of anywhere from 30-40 who faced two and half years filled with new experiences, adventure, excitement, hardships, and danger. This article will look more closely at two unofficial members.

York, William Clark's African American slave, played a vital role in the success of the expedition. While his name is

mentioned directly only a few times, other references to his presence indicate how interesting his life must have been. He was Clark's body servant, having been given to him as a childhood companion when they were both 13-15 years old. What kind of things would a body servant do on an expedition of this magnitude? Just about anything and everything. For example York helped pole the boats, fished, hunted, tracked,



helped provide shelter, discovered new wildlife, helped protect members of the Corps, and entertained and traded with the Indians. Because of his uniqueness the Shoshone were willing to provide the Corps with horses. Other tribes instantly became his friend and thereby were willing to help the expedition also. Stories have been handed down in many Native American tribes telling of how a

member of the tribe would try to rub or wash off York's blackness only to realize it was not a trick. Native American culture teaches that different, whether you are different physically, mentally or some other way, is not necessarily wrong. So York was not ostracized nor feared by the Indians, but was worshiped. While York was not an official Corps member, he was respected and accepted by the other Corps members. And while he had a vote in where to winter in 1805, when they returned home in 1806 all the others received pay and land, but not York. He asked for his freedom but did not receive it at the time either. There is controversy on whether or not York received his freedom, some five years later. Some say he did, and was so unhappy with his treatment as a freeman that he asked to be enslaved again but died before that happened. Some say he disappeared into the wilderness and settled with the Crow leading a long and happy life. Either way history, as taught in the public schools, has given little credit to this man.

(Continued on page 4)

### Table of Contents

<i>Science Takes a Back Seat; Unofficial Members of the Corps of Discovery</i>	1
<i>Lewis and Clark Trivia</i>	2
<i>Classroom Resources; The Literature Connection</i>	3
<i>Mosquito, Prairie Dogs</i>	4

## *What Do You Know About Lewis and Clark?*

1. M. Lewis and Thomas Jefferson designed this 220 pound vehicle to be assembled at the Great Falls, to help traverse the river. Note the 220 pound frame was hauled two-thirds of the way across the continent, and sank on its one and only outing as the pine pitch needed to seal it was unavailable.
2. Encountered hundreds of these animals on the Missouri River. Lewis discovered he could pour "five" gallons of water in one's pouch.
3. This was used as a pick-me-up drink, as well as a treatment for fever, snake bites, abdominal pain, malaria, and many other illnesses.
4. A ground hog-like large rodent about the size of a housecat. Sometimes referred to as whistling pigs. The expedition discovered a yellow bellied one.
5. A kind of North American elk. One of 6 subspecies or variations which mostly result from what and how much they eat.
6. The Expedition traveled to the Pacific and back to St. Louis with a Newfoundland dog. For many years the name of the dog was thought to be "Scannon". While deciphering the travel journals of Lewis and Clark a mistake was made because of the blurred ink. This was the dog's actual name.
7. Charbonneau and Sacagewea's son.
8. The Mandan and Hidatsa Indians taught the Corps how to make this teacup shaped vessel to shuttle people and supplies short distances.
9. Most common vessel used during the expedition. This flat bottom boat was the most stable and easiest to navigate and thus carried the journals, medical supplies, and sextant.
10. This fatty animal could be killed, dried, a wick drawn through the up righted body, and lit to produce light.
11. The fastest runner in America, clocked at 60 miles per hour. Lewis and Clark knew of nothing in North America or Europe with which to equate it, as it was most similar to an African animal.
12. This medical instrument was used to pull arteries out of a wound.
13. This plant punished the moccasin-wearing expedition ruthlessly.
14. While the Great Falls has a 96 foot fall, there were \_\_\_\_\_ more falls involved and with a total of 12 miles of rapids and a drop of a total of 400 feet that the expedition had to navigate.

ANSWER BANK: (Correct answers can be seen on page 4.)

- |               |              |                 |                  |              |
|---------------|--------------|-----------------|------------------|--------------|
| A. Wapiti     | D. Iron boat | G. Pomp         | J. Peruvian bark | M. Seaman    |
| B. Bull boats | E. Pronghorn | H. Prickly Pear | K. Four          | N. Tenaculum |
| C. Pelican    | F. Marmot    | I. Pirogue      | L. Candlefish    |              |

(Science—cont'd from page 1)

astronomy, celestial navigation, and archaeology. In addition to the intense training, Philadelphia's scientific leaders provided Lewis with important instruments, scientific tools, and reference books. During the two and a half year expedition more than three hundred plants and animals were meticulously described.

While Lewis was not actively seeking dinosaurs (note the term wasn't even coined for some forty years after his return to St. Louis), he was vigilantly looking for animals who were rare, extinct, or not known in North America. As a result he found several fossil remains including that of a pleisosaur.

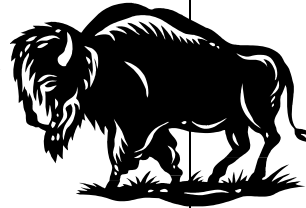
The National Park Service provides Lewis and Clark Curriculum Guides for 1st—7th grade and high school.. It provides exciting and innovative lesson plans such as the high school lesson dealing with the mysterious death of Lewis. Lesson plans include activities, references, resource lists, teaching aids, standards, glossary and pronunciation guides, and journal excerpts. Regardless of what age you teach you can find something at <http://www.nps.gov/jeff/LewisClark/Education>

A great middle school lesson plan, easily adapted to a high school class, relating to the expedition can be found at: [http://www.scsc.k12.ar.us/1999outwest/members/warnockJ/lesson\\_plan.htm](http://www.scsc.k12.ar.us/1999outwest/members/warnockJ/lesson_plan.htm) It involves scientific inquiry, life science systems, journaling, drawing, and an incredible excerpt from the Lewis and Clark Rocky Mountains Checklist of plants and animals.

Another exceptional science related website is sponsored by North Dakota at: <http://www.lnc.k12.nd.us/Resources/LessonPlans/Guide.html> This provides lesson plans for 1st-12th grades dealing with a wide range of topics including plants, weather, transportation, animals, and medicine. Each lesson plan provides objectives, time and materials needed, national standards addressed, activities and web links. In addition some lesson plans include wonderful reference files. Check it out.

## The Literature Connection

A wonderful high school level book is Robert Betts' *In Search of York: The Slave Who Went to the Pacific with Lewis and Clark* (revised ed.) published by the University Press of Colorado, ISBN 0-87081-714-0. The book is divided into five parts, one part uses journal entries to follow York's participation in the expedition, two parts address myths surrounding his life and death, another part tries to reconstruct what his life pre-expedition would have been like, and the last is a short summary. This well written book illuminates many aspects of York and of the racial prejudice impacting historical perspective of his contributions to history.



Another excellent book is *York's Adventures with Lewis and Clark: an African-American's Part in the Great Expedition* by Rhoda Blumberg, published by HarperCollins. Designed for middle school students it too tries to describe what his childhood must have been like, what the emotional boundaries between slave owners and their slaves were like, as well as his invaluable contributions to the expedition. It is based in large part on the recently published letters of William Clark.

Lewis and Clark were not the only ones to interact with the Native Americans. Of the many explorers, trappers, and military, there was also George Catlin. *A Portrait of Spotted Deer's Grandfather* by Amy Little-sugar, published by Albert Whitman, ISBN 0-8075-6622-5, is a simple children's book, easily used through middle school. It tells the story of an Indian boy's hope that his Grandfather will agree to have the

"Medicine Painter" paint his portrait. In a simple story it helps to show the time of change the Native Americans were undergoing, and the compassion of one White man. Very well done.

In a totally different vein, a fun book to have would be

Susan Hodges's *Multicultural Snacks* published by Warren House, ISBN 1-57029-025-3. It includes seventeen different types of food and examples of how different cultures might prepare them. For example there is the Buckskin Bread and Blueberry Roll-up, both Native American. The range of culture is quite broad and includes such cultures as Dutch, Middle Eastern, Jewish, Mexican, Trinidadian, and many more. The recipes are simple and if a special ingredient is needed, which is seldom, a source suggestion is provided. *Bon appetitit.*

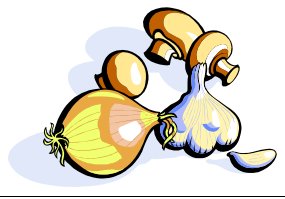
## Classroom Resources

As is well-known, PBS is an incredible source of classroom resources. Be sure and take advantage of their seventeen well written lesson plans addressing the Lewis and Clark expedition which comprise an interdisciplinary unit which includes the use of television and computers. The lesson plans include learning objectives, identification of national content standards addressed, Teacher Notes, a list of tools and materials needed, extensions and adaptations, assessments, recommended resources/references, and downloadable student activity sheets and quizzes. Social studies, mathematics, science, and language arts all provide representative middle level lesson plans, many of which could be adapted to a high school level, or some to an elementary

level. As a whole the unit has students examine geography, science, and how the expedition affected various Native American tribes. Examples of types of lessons: **Lesson 1** deals with uncharted territory and preconceived ideas; **Lesson 4** has students examine, interpret, and analyze the Lewis and Clark journals; **Lesson 5** focuses on the relationship between the Corps of Discovery and various tribes; **Lessons 6 and 7** involves study of Native American culture and the geography of the region; **Lesson 12** focuses on the science related to the trip; and **Lesson 13** emphasizes the discovery of new animals and the food web.

Another excellent resource is available

(Continued on page 4)



USAO Multicultural  
Resource Center  
1727 W. Alabama  
Chickasha, OK 73018

Phone (405) 574-1291

facmatherj@usao.edu

Current and archived issues are  
available at our website  
[www.usao.edu/Classroom-Spice/](http://www.usao.edu/Classroom-Spice/)

**Page 2 Trivia Answers:**

1-D, 2-C, 3-J, 4-F, 5-A, 6-M, 7-G,  
8-B, 9-I, 10-L, 11-E, 12-N, 13-H,  
14-K

**In This Issue...**

Unofficial Corps Members; Science; Classroom Resources; Trivia ; Literature

**So how many  
ways can “you”  
spell mosquito?**

**Hopefully, only one.  
William Clark on the  
other hand spelled it  
twenty-six different  
ways in his journal, not  
one of them correctly.**

**Prairie Dog-I  
Lewis & Clark-0**

**The expedition deter-  
mined to capture a prai-  
rie dog out of its den.  
They poured gallons and  
gallons of water down  
the burrow, tried dig-  
ging it up but to no avail.  
The prairie dog foiled all  
their attempts.**

*(Resources—Cont’d from page 3)*  
through the Lewis and Clark  
Trail Heritage Foundation, Inc.  
Aside from its wealth of back-  
ground information for second-  
ary students and teachers, it  
provides "Kid's Pages from The  
Orderly Report." These include  
downloadable crossword puzzles  
and word searches covering such  
topics as Great Falls, Capt.  
Clark, and wilderness survival.

*An American Legacy* is a  
great Curriculum and Resource  
Guide for 5th-9th grades. It is in  
loose leaf format with science,  
math, social studies, language  
arts, and fine arts lessons. In  
addition it has a reference guide,  
handouts and reading materials.

[www.lewisandclark200.gov](http://www.lewisandclark200.gov)  
is a wonderful source of informa-  
tion from lesson plans, maps, to  
on-line activities, and more. Es-  
pecially great are its copies of the  
expedition journals! Be sure and  
take advantage of this site.

*(Unoff’l Corps—Cont’d from page 1)*

The name Sacagawea is famil-  
iar to many but what do you  
really know about her? Do you  
know what she looks like? No,  
even if you get a Sacagawea dol-  
lar coin with her likeness on it  
you would not know. Why not?  
There are no recorded likenesses  
of Sacagawea! The artist for the  
government had to guess, as did  
all the other artists who created  
statues in her honor across the  
Northwest. It is claimed that she  
has more statues and public  
schools named after her than any  
other woman.

Much of her early childhood  
is unclear. It is known that she  
was Shoshone, and her name  
meant “Boat Pusher,” quite ap-  
propriate for her future adven-  
ture. When she was 11 or 12 she  
was kidnapped and raised by  
Hidatsa Indians and taken to  
North Dakota. Her Hidatsa

name was Tsi-ki-ka-wi-as,  
meaning “Bird Woman,” by  
which history sometimes refers  
to her. When she was about 14 a  
French Canadian trader took her  
as one of his wives. There is  
question as to whether Lewis  
and Clark hired Charbonneau  
just to get his wife who could  
interpret for them with the Sho-  
shone and to act as an emissary  
to other tribes. In actuality she  
did much more, including cook-  
ing, sewing, foraging for food,  
washing and at least once she  
helped rescue Lewis and Clark  
from their capsized boat, and  
another time rescued the  
“journals” and supplies. It is  
interesting to note that she did all  
this, with a child, Jean-Baptiste  
(nicknamed Pomp by Lewis),  
born just a few months after the  
start of the expedition. There are  
differing stories as to how she  
died, but what is important was  
how she lived.