

Social Studies Extensions

MAPPING THE TRAIL

The 2003 Kentucky State Fair Educational Exhibit budget supported high school internships in mapmaking. Four students at Eastern High School in Jefferson County created a series of maps featured in the exhibit. Two of these maps were enlarged on the 16x32' floor map displayed at the Fair. The Kentucky State Fair Board has donated this giant floor map to Jefferson County Public Schools for continued use. Contact David Wicks for further information: [dwicks1@jefferson.k12.ky.us](mailto:dwicksl@jefferson.k12.ky.us). Teachers may order large color prints of the student-created Lewis & Clark maps by contacting Scott Horan at Eastern High School: shoran1@jefferson.ky12.ky.us.

Use these readymade maps for the following activities or create your own maps by locating these sites on generic Kentucky area or continental U.S. maps.

The Lewis & Clark Expedition: 1803-1806

Based on a map created by Daniel Shay.

Our map featured the key sites listed below, although many versions of the Trail map are available. The National Park Service, US Army Corps of Engineers, and USGS are among the organizations providing printed maps of the Trail. Also, check out these Trail maps on the Internet:

www.edgate.com/lewisandclark/

www.lewis-clark.org/index.htm.

www.pbs.org/lewisandclark/archive/idx_map.html

<http://yoda.cec.umt.edu/sid/landsat5/>

Suggested Activities:

- Research the significance of each of the Trail sites featured on the Kentucky State Fair map and annotate this key. (E/M/H)
- Use the Expedition journals to locate descriptions recorded by Lewis, Clark, or the men about some of these sites. (E/M/H)
- Determine the latitude and longitude or location in current geographic terms (near present-day towns/features) for each site. (E/M/H)
- Assemble travel brochures, Web sites, magazine and newspaper clippings, etc., for the Trail sites. Create a binder of information, organizing the sites from east to west. (E)
- Discuss the land that was the United States and its territories in 1803. How many states had been formed at this time? What areas were considered U.S. territories at this time? Which cities were the largest and where were they located? Why did two-thirds of all Americans live within 50 miles of the Atlantic Ocean? What was the Louisiana Purchase, and why was it important to the Expedition story? What other nations controlled territories in the area now known as the continental U.S.? Where were these lands? Follow the Trail from east to west, starting in Pittsburgh. How many present-day states are along the Trail? (E/M)
- Conceive of the Expedition route as a puzzle, with each piece representing a logical segment of the Trail. Laminate a trail map and cut it into several jigsaw pieces to create a puzzle. (E)

- Estimate the percentage of the Trail that was water route and the percentage that was over land. (M/H)
- Debate the actual starting point of the Lewis & Clark Expedition. Was it Monticello, Washington, D.C., Pittsburgh, Louisville/Clarksville, or Camp Dubois/St. Louis? Why are there so many different opinions? (E/M/H)
- Order the USGS map, “Lewis & Clark: A Legacy of Science,” comparing William Clark’s original map of the Trail with a map of the same area created using modern remote sensing technologies. Compare mapmaking today with techniques and equipment used 200 years ago. The \$10 map (plus \$5 handling) may be ordered by calling, toll free, 1-888-275-8747 or go to: <http://rockyweb.cr.usgs.gov/historicmaps/historicmapsfromlca.html>
- Discuss how a compass functions. Use a compass to navigate your school property. Draw maps of the area, including a directional symbol to indicate North. Determine the directions of each of the main components of the school property (parking lot, gym, playground, etc.), in relation to the main entrance of the school. (E)
- Explore virtual river views and interactive maps of the Trail at “Lewis & Clark Across Missouri:” <http://lewisclark.geog.missouri.edu/index.shtml>

Key Lewis & Clark Expedition Sites: 1803-1806

Preparations

1. Monticello
2. Washington, DC
3. Philadelphia
4. Harpers Ferry

Recruitment

5. Pittsburgh
6. Louisville
7. Ft. Massac
8. Ft. Kaskaskia
9. St. Louis
10. Camp Dubois

Exploration

11. Council Bluffs
12. Floyd’s Grave
13. Calumet Bluff
14. Ft. Mandan
15. Great Falls
16. Camp Fortunate
17. Shoshone Villages
18. Travelers’ Rest
19. Lolo Trail
20. Columbia Cascades
21. Ft. Clatsop
22. Camp Disappointment

Lewis & Clark Expedition Trail Map Trivia

Create a game show with trivia questions about the Trail. Ask students to identify the correct site by pointing it out on a map or recording a corresponding site name or number.

Here are some questions and answers to get you started. Our answers include the reference numbers used on the Kentucky State Fair trail map, “Lewis & Clark Expedition 1803-1806.”

This spot was President Thomas Jefferson’s home, and Meriwether Lewis grew up in the same county.

Monticello in Albemarle County, VA (1)

Thomas Jefferson and Meriwether Lewis were both living here (at 1600 Pennsylvania Avenue), when they made plans for the Expedition.

Washington, D.C. (in the White House—even though it wasn’t painted white yet!) (2)

This was a great city of learning, where Captain Lewis was sent to study with experts in botany, astronomy, medicine, and more.

Philadelphia, PA (3)

Lewis purchased the rifles for the Expedition here.

Harpers Ferry (present-day WV) (4)

The frame for a collapsible iron boat designed by Lewis was constructed here (it was called the “Experiment,” but sadly, the experiment failed in the water).

Harpers Ferry (present-day WV) (4)

The keelboat, named the *Discovery*, was built here.

Pittsburgh, PA (5)

At the end of August 1803, Lewis and a temporary crew left from this city in the keelboat and a smaller boat called a pirogue.

Pittsburgh, PA (5)

This is where nine hunters and woodsmen were enlisted to join the Expedition.

Louisville, KY/Clarksville (6)

This river formed the first leg of the Trail.

Ohio R. (between 5-7)

The biggest navigational challenge on the Ohio River was in this location.

The Falls of the Ohio, a series of rapids, at Louisville/Clarksville (6)

Kentuckian Joseph Whitehouse joined the Corps of Discovery at this fort near the confluence of the Ohio & Mississippi Rivers.

Ft. Massac (7)

Kentuckian Alexander Willard joined the Corps of Discovery at this fort along the Mississippi River.

Ft. Kaskaskia (8)

This was the first winter camp for the Expedition.

Camp Dubois on the Wood River (10)

While Capt. Clark trained the men at the first winter camp, Capt. Lewis bought more supplies and handled business matters in this nearby city.

St. Louis (9)

This city is sometimes called the “Gateway to the South” and is home to a 630-foot arch.

St. Louis (9)

Lewis & Clark attended a ceremony to transfer the Louisiana Purchase lands from France to the United States in this city.

St. Louis (9)

The first Indian council, with Missouri & Oto tribes, took place here.

Council Bluffs (11) in present-day IA

Only one man in the Corps of Discovery died on the Expedition, and this sad event happened at this spot.

Floyd’s Grave (12) in present-day Sioux City, IA

Lewis & Clark had their first meeting with Sioux Indians in this place, now in South Dakota.

Calumet Bluff (13)

The second winter camp was named after the nearby villages of an Indian tribe.

Ft. Mandan (14) in present-day SD

The explorers joined in a big buffalo hunt near here.

Ft. Mandan (14) in present-day SD

This major challenge for the explorers was a series of huge waterfalls spread out over ten miles.

Great Falls (15) in present-day MT

When the Expedition's Indian guide, Sacagawea, found that her long-lost brother was the chief of tribe helping the explorers over the mountains, they gave the spot a happy name.

Camp Fortunate (16) in present-day MT

The Expedition obtained horses to cross the mountains from Sacagawea's tribe, and they were living here.

Shoshone Villages (17) present-day ID

Before heading over the Bitterroot Mountains, the Corps of Discovery *rested* here.

Traveler's Rest (18) present-day MT

It's the treacherous path the explorers took over the Bitterroot Mountains.

Lolo Trail (19) present-day ID

The waterfalls here were the last major navigational challenges on the way to the ocean.

Columbia Cascades (20)

The northernmost part of the Trail was explored by Captain Lewis and a small detachment of men.

Camp Disappointment (22) along the Marias River in present-day northern MT

The Corps of Discovery spent their final winter here, near one of the coastal tribes.

Ft. Clatsop (21) present-day OR

This rainy spot was selected for the Expedition's last fort because elk were abundant and salt could be made in the area.

Ft. Clatsop (21) present-day OR

Map Making on the Lewis & Clark Trail Worksheet

Fill in the blanks.

1. The mapmaker of the Expedition was this commander: _____.

2. The final map of the Expedition, called “Lewis & Clark’s Tract” or simply “Clark’s Tract” was published this year: _____.

3. Who wrote these orders? (Write his name at the end.)

Beginning at the mouth of the Missouri, you will take observations of latitude and longitude at all remarkable points on the river, & especially at the mouths of rivers, at rapids, at islands & other places & objects distinguished by such natural marks & characters of a durable kind, as that they may with certainty be recognized hereafter. The courses of the river between these points of observation may be supplied by the compass, the log-line & by time, corrected by the observations themselves. The variations of the compass too, in different places should be noticed.

_____.

4. This scientific instrument carried on the journey was used to calculate *latitude*: _____.

When weather permitted, Lewis or Clark would measure the altitude of the sun at high noon or make repeated measurements of the angle between the moon and a target star. These calculations could be compared to a table of dates and positions. The positions of these celestial objects on a given day could tell them how far north of the equator they were. Since the tables were too bulky to carry on the Expedition, the captains recorded the measurements for later interpretation.

5. A _____ was a clock that, when accurate, could calculate *longitude* by determining the time in Greenwich, England, located on the prime meridian, and comparing it with the time at a given location. To maintain accurate time, this instrument had to be wound each day at noon, but this wasn’t always practical. To reset it, the explorers had to take all new celestial observations.

6. This was probably the most important instrument the men carried: the _____, purchased by Captain Lewis for \$5. Captain Clark used it to determine the *direction* they were traveling. It was manufactured by Thomas Whitney, Philadelphia. The original is in the Smithsonian Institute.

Kentucky Area Lewis & Clark Sites: The Foundation of the Corps of Discovery

Map created by Daniel Shay.

Reading the Map (E/M):

- This map shows some of the most important Lewis & Clark sites in and around Kentucky. How many sites have been identified?
- Why are some of the numbers white and some yellow?
- What key feature on this map was most important to the Lewis & Clark Expedition?
- What is the northernmost site on this map? The southernmost? The westernmost?
- Locate the Lewis & Clark site closest to your school or home.
- Using the scale of miles, estimate the distance between sites 11 and 18. Between sites 1 and 2. Between sites 2 and 3.
- Research to find more information about number 14 on this map. Through which settlements did this road lead? Which natural feature is located at the southern end of this road? Why was this trail important to Kentucky history?
- Add more sites to this map, as you learn about additional Kentucky connections to the story!

Extensions for Kentucky Area Lewis & Clark Sites (E/M):

- Explore the “Interactive Map of Kentucky Area Lewis & Clark Sites,” created as a touch screen computer program for the 2003 Kentucky State Fair Educational Exhibit. It has been published on this Web site: www.lewisandclark1803.com (click on Teacher link).
- Plan a field trip to one of these sites.
- Collect and design brochures related to these sites and use them on a bulletin board to promote awareness of Kentucky’s Lewis & Clark connections.
- Research historical markers that identify Lewis & Clark sites. Write text for your own historical markers to identify Lewis & Clark sites in your area.

Kentucky Area Lewis & Clark Sites: The Foundation of the Corps of Discovery

1. **Maysville, KY**—hometown of Private John Colter & a stop for Captain Lewis and his flotilla on 9/25/1803.
2. **Cincinnati, OH**—Lewis arrived 9/28/1803 and spent six days purchasing more supplies and meeting with Dr. William Goforth, a researcher of the fossil site across the river in Ky.
3. **Big Bone Lick, KY**—A famous fossil site, Lewis stayed 5 days and prepared a report for the President on the mammoth & other Ice Age creatures that could still roam out West.
4. **Louisville**—Clark met Lewis on 10/14/1803, and the Lewis & Clark Expedition began. The captains recruited the foundation of the Corps of Discovery & purchased supplies.
5. **Clarksville, Indiana Territory**—William Clark and York had just moved here from Louisville, and the cabin became a temporary headquarters for the Expedition. The keelboat and pirogue left the Falls of the Ohio on 10/26/1803.
6. **Jefferson County**—Several recruits were from this area. Reubin & Joseph Field and Nathaniel Pryor were living here in 1803, Charles Floyd was born here, and George Gibson settled here for a time after the Expedition.
7. **Bullitt's Lick**—Reubin & Joseph Field, who were a part of the salt-making detail during the winter on the Pacific Ocean, learned the process at brother Ezekial's salt works here.
8. **Mercer County**—Private Joseph Whitehouse was living here when recruited.
9. **West Point**—Blacksmith & gunsmith John Shields' hometown.
10. **Fort Massac, Illinois Territory**—the Expedition recruited more men, including Joseph Whitehouse. Fr. Canadian-Shawnee trapper George Drouillard was hired as interpreter.
11. **Ohio R./Mississippi R. confluence**—Clark surveyed the rivers & visited the abandoned Fort Jefferson, established by his brother. Proceeding on the Mississippi, the Expedition was now traveling upstream.

Post-Expedition Sites:

12. **Frankfort**—The first newspaper reports of the Expedition's return were published here in Oct. 1806. Captain Lewis & the visiting Indian delegation visited here on 11/03/1806.
13. **Danville**—William Clark and York stopped here to visit Clark's nephews at school on their way to give President Jefferson their final report in Washington, DC.
14. **Wilderness Road**—In late fall of 1806, the returning Captains and their parties traveled the Wilderness Road on their way to Washington, to report to President Jefferson.
15. **Cumberland Gap**—The returning Expedition members left Kentucky by passing through the Cumberland Gap.
16. **Lexington**—In late 1806, trader Pierre Chouteau and the Osage Indian delegation made a stop here. Private George Shannon studied at Transylvania University, then moved back here to marry and become a lawyer and legislator.
17. **Shelbyville**—Clark was visiting here when he learned of Lewis's death in 1809. Private Alexander Willard married a woman in Shelbyville & they lived here for a few years.
18. **Harrison County, Indiana Territory**—After spending some time as a trapper with Daniel Boone in Missouri, John Shields settled near Corydon. He died there in 1809.
19. **Waynetown, Indiana Territory**—William Bratton settled here after the Expedition and served as school superintendent and justice of the peace.
20. **Paducah**—Expedition co-commander, William Clark, founded this river town in 1827.

Falls of the Ohio Area Lewis & Clark Sites:

1. **Mulberry Hill**—Expedition co-commander William Clark and his slave York lived on this Clark family plantation from 1785-1803. They moved across the river to Point of Rocks just weeks before Lewis arrived. Today, the site that was once Mulberry Hill is George Rogers Clark Park on Poplar Level Road.
2. **Floyd's Station**—Sergeant Charles Floyd, the only Expedition member to die on the journey, was born and raised in this family settlement in present-day St. Matthews. By the time he was recruited, he was living across the river in Indiana Territory.
- 3/4/5. **Fairdale, Valley Station & Okolona**—William Clark recruited "*the best woodsmen & Hunters...in this part of the Countrey*" for the Expedition, and brothers Reubin & Joseph Field were the best of the best. They learned their skills ranging the forests of the southern part of the Jefferson County where they lived on Pond Creek. Today some of this area is Jefferson County Memorial Forest.
6. **Louisville**—William Clark recruited many of the men for the Expedition in and around Louisville, and the co-commanders met in this growing river city on October 14, 1803. For several days, Lewis & Clark attended to business in Louisville, purchasing supplies and making legal arrangements at the Jefferson County Courthouse.
7. **Falls of the Ohio**—This series of rapids was the greatest navigating challenge along the Ohio River and contributed to the growth of the cities on either side of the river. Local pilots were hired to take the keelboat and pirogue through the falls on October 15, 1803.
8. **Clarksville, Indiana Territory**—William Clark's older brother, General George Rogers Clark, founded this town in 1783, on land awarded to veterans of the Revolutionary War Campaign in Illinois Territory. Lewis & Clark prepared for the western journey here.
9. **Point of Rocks (Clark's Point), Indiana Territory**—In 1803, George Rogers Clark and William Clark built a cabin here, overlooking the Falls of the Ohio. Called Point of Rocks at that time, it was later known as Clark's Point. The cabin has been recreated at this site.
10. **Locust Grove**—This historic home and farm near the Ohio River was the home of Lucy Croghan and her husband. Lucy, the sister of William Clark, hosted a return dinner for Captains Lewis & Clark on November 8, 1806. The site is the only surviving Lewis & Clark structure west of the Appalachians.