

# RIVER TO THE SEA

ITV SERIES

LEWIS AND CLARK #102:  
Journey of the Corps of Discovery

GRADES 4-6

## PREVIEWING ACTIVITY

Have each student label the cardinal directions on their paper towel. Review directions on a map. Tell students that they are going to make a representation of the continental divide. Tell students that the continental divide is a high ridge of mountains—what we know as the Rockies in the northern United States. On the east side of the continental divide, water flows toward the Atlantic Ocean, most of it being captured by the Mississippi. On the west side of the continental divide, water flows toward the Pacific Ocean. Have students label these oceans on their paper towel.

Have students fold their piece of aluminum foil into a tent or mountain shape and place it on the middle of their paper towel so that the sides of the mountain face east and west. Students should dribble water slowly on the fold or mountain ridge of their aluminum foil. Observe the water flow towards the oceans.

Locate the continental divide on a classroom map of the United States. Discuss the river systems that begin near the top of the divide and head east and west. Emphasize particularly the Missouri River and the Columbia River.

*Note to Teacher: This is the second of two videos on the Lewis and Clark expedition. This video begins as the explorers near the continental divide.*

## FOCUS FOR VIEWING

The focus for viewing is a specific responsibility or task that the students are responsible for during or after watching the video to focus and engage students' viewing attention.

Tell students that they are going to be watching sections of a video about Lewis and Clark's journey from the Mississippi River to the Pacific Ocean. The video will begin as the members of the Corps of Discovery cross the continental divide. Using a map, trace the journey so far, from St. Louis, Missouri, up the Missouri River to its headwaters.

Give the students the following specific responsibility when watching this video segment.

## OVERVIEW

In this lesson students should learn the function of watersheds and weather as they follow Lewis and Clark from the continental divide to their destination at the Pacific Ocean. They will study the water cycle as it applies to condensation. Students will also investigate mapping unknown territory and will create a map of known territory using accurate measurements. They will build a model watershed.

## RIVER TO THE SEA

## LEARNING OBJECTIVES

Students should be able to:

- Describe what happens to the water at the continental divide.
- Draw an accurate representation of their classroom.
- Describe the difficulties of traveling in unknown territory.
- Describe parts of the Columbia River watershed.
- List the reasons for super-abundant rain in the Columbia Gorge.
- Trace the journey of Lewis and Clark from the continental divide to the Pacific Ocean.
- List many of the difficulties of the journey.

## FOCUS FOR VIEWING (continued)

Direct the students to watch this segment of the video to discover why the Corps of Discovery was disappointed when they crossed the continental divide.

## VIEWING ACTIVITIES

**START THE VIDEO** at the picture of the moonrise with the words, “In many respects the expedition was like going to the moon.”

**PAUSE THE VIDEO** with the words, “ ‘If we do not find them, I feel the successful issue of our voyage will be very doubtful.’ Meriwether Lewis.” Ask the students why the group was disappointed when they had crossed the continental divide.

**FAST FORWARD THE VIDEO** quite a way through the information on the meeting with the Shoshoni Indians. While the video is fast forwarding, tell the students that when the Corps of Discovery meets with the Shoshoni Indians, Sacajawea meets her long-lost brother. Successful negotiations are made with the Shoshoni to trade for horses. The Shoshoni also provide a guide.

As a focus for viewing in the next segment, have the students find what mistake had been made by the captains when they followed the Missouri River to its headwaters.

**RESUME THE VIDEO** at the title screen (black with white lettering) “The Most Terrible Mountains.”

**PAUSE THE VIDEO** at the picture of the map with the words, “Instead of four days, it had taken them fifty-three.” Discuss with the students what they would do if they were stranded in unknown territory without a map.

**Charting the Unknown**

Give each student drawing paper and the following directions:

“Draw a map of our classroom as though you were hanging from the ceiling. Be sure to include all of the desks, file cabinets, and other items in the classroom.” Discuss with students the importance of size in creating an accurate map. As a class, decide what measurements to use for desks and other classroom objects before the students begin. Direct students to use their rulers to create an accurate representation of the classroom.

# RIVER TO THE SEA

ITV SERIES

LEWIS AND CLARK #102:  
*Journey of the Corps of Discovery*

## VIEWING ACTIVITIES (continued)

Mark a path which goes from the door of the classroom to the pencil sharpener (or other object) and back to your desk. Mark that path with your red marker.

Since you are the first to explore this new land, you are allowed to name different features of the landscape. Name the path as different mountain passes and rivers. Name the desks and other things which you pass as mountains. This is your new discovery. Be creative.

Have students color their maps. Display on a bulletin board.

As a focus for viewing in the next segment have the students find out what troubles were faced by the expedition during the crossing of the mountains. **RESUME THE VIDEO.**

**PAUSE THE VIDEO** at the title screen, “Watkuweis.” Discuss the problems which the expedition faced. **FAST FORWARD THE VIDEO** through the Nez Perce section while telling the students that the Nez Perce were kind to the members of the expedition and helped them get ready to proceed on their journey because white people had once been kind to a captured Nez Perce girl named Watkuweis. **STOP THE VIDEO** with the picture of canoes being burned out of Ponderosa pine trees.

As a focus for viewing in the next segment have the students discover what rivers the party traveled on in the canoes to reach the Columbia. Also have the students be able to tell what is different about the Columbia River then and now. **RESUME THE VIDEO.**

**PAUSE THE VIDEO** with the old picture of Indians along the Columbia River and the words, “. . . and they’d have dog for dinner.” Discuss the rivers—Clearwater, Snake, and Columbia. Trace the journey on a map. Discuss the problems with salmon as endangered species.

As a focus for viewing in the next segment have the students look for the landmark that proved to the Corps of Discovery that they were back in charted territory. **RESUME THE VIDEO.**

**PAUSE THE VIDEO** with the picture of Mt. Hood after the words, “They were back on the map.” Have students look for

## MATERIALS

### Previewing Activity

- one classroom map of the United States

Per Student

- one paper towel
- one 6" x 6" square of aluminum foil
- one pencil
- approximately 1/4 cup water

### Charting the Unknown

Per Student

- 9" x 12" white drawing paper
- pencil and colored pencils or crayons
- one ruler
- one red marker

### Make it Rain

- one hot plate and pan or electric kettle/frypan
- one sheet of plastic, approximately 4' x 4'
- two trays of ice cubes
- old newspapers to cover the floor

## RIVER TO THE SEA

## MATERIALS (continued)

## Rivers to the Sea

- one large table
- several old cardboard boxes
- old steak knives for cutting cardboard
- masking tape or duct tape
- plastic sheeting larger than the table
- several gallon buckets of sand or dirt
- blocks or books to elevate one end of the table
- buckets of water
- five gallon bucket to catch water

## VIEWING ACTIVITIES (continued)

information on the distance to the ocean. **RESUME THE VIDEO.**

**PAUSE THE VIDEO** with the title screen, “O! the Joy.” As a focus for viewing in the next segment, have the students find information about the Columbia Gorge including how much rain falls in the area each year. **RESUME THE VIDEO.**

**PAUSE THE VIDEO** with the picture of the moss covered trees after the words, “It’s literally a rainforest that they entered.” Discuss the Columbia Gorge.

**Make it Rain**

Discuss with students how the air around us holds water vapor. This happens because water evaporates into the air and becomes vapor. Air picks up a great deal of water from the ocean before it blows inland. Warm air can hold more water than cold air. When air crosses the mountains it rises and cools in the higher atmosphere. It cannot hold as much water.

Set a kettle of hot water on a burner or use an electric pan turned on high. Bring the water to boiling. Have students hold a large sheet of clear plastic about one to two feet above the boiling water. Make sure that the students are a safe distance away from the water. The teacher should then place ice cubes on top of the sheet of stretched plastic. The ice cubes will cause the air to cool and the water vapor to condense. It will rain.

**FAST FORWARD THE VIDEO** through the discussion of the coast Indians. While this is being done, explain that the coast Indians lived in plank houses. Some wore clothes of cedar bark. Some wore blue jackets which they had received in trade for otter pelts. The area was densely populated.

**PAUSE THE VIDEO** at the picture of the river and birds flying. Ask the students to look for signs in the next segment that the expedition was nearing the ocean. **RESUME THE VIDEO** with the words, “The river widened still further . . .”

**PAUSE THE VIDEO** at the picture of the wind-blown trees with the words, “Then the weather turned on them and trapped them there for nearly three weeks.” Ask the students to look for information on what it was like for the members of the expedition during these three weeks. **RESUME THE VIDEO.**

# RIVER TO THE SEA

ITV SERIES

LEWIS AND CLARK #102:  
Journey of the Corps of Discovery

## VIEWING ACTIVITIES (continued)

**PAUSE THE VIDEO** with the picture of William Least Heat-Moon and the words, “They had arrived.” Ask the students to look for the following information: (1) a description of the ocean; (2) what decisions the expedition had to make; and (3) what was so unusual about the vote that was taken. **RESUME THE VIDEO.**

**STOP THE VIDEO** with the picture of the tree and the words, “Captain William Clark by land from the United States.” Discuss student responses to the above foci for viewing.

## POST VIEWING ACTIVITY

### Rivers to the Sea

*Note to teacher: This is a messy but fun activity which can branch off in many directions. It will take time to gather the materials and build the stream table. You may want to have this done before viewing the video. Having the stream table prepared and waiting will provide an interesting anticipatory set.*

Cut long strips of cardboard approximately eight inches wide using a steak knife. Fold in half and tape as a rim all around the large table with masking tape or duct tape. Cover the table with a large piece of heavy plastic. Elevate one end of the table on blocks or books. Place the five gallon bucket at the lower end of the table. Form a dip in the cardboard wall at that site to allow excess water to drain into the bucket.

When you are ready to begin the activity, have the students dump the dirt and sand at the high end of the table. Have the students create the continental divide at the top end of the table. Have the Snake River come in from one side and the Clearwater come from the continental divide. Further down the table have the Columbia River where the Snake will flow into it. See a map of the United States to accurately portray this setup.

When students are satisfied with their arrangement, have students begin slowly pouring water into the three rivers. Observe as the rivers flow toward the Pacific Ocean on the lower part of the table. Have one student in charge of making sure the “ocean” empties into the five gallon bucket. Discuss with students how the three rivers flow together to create one

## ACTION PLAN

If possible, visit a section of the Lewis and Clark Trail.

Invite a cartographer to speak to the class about map making.

Invite a weatherperson to speak to the class. Determine why your area has its particular climate.

# RIVER TO THE SEA

## VIDEO AVAILABLE FROM

Can be taped off air. Consult your local PBS station for broadcast schedule.

## POST VIEWING ACTIVITY (continued)

large river emptying into the ocean. Mention that many smaller rivers and streams empty into each of these rivers.

As an added activity, remake the area into two nearly straight streams. Line one of the streams with netting. Discuss how vegetation along streams helps to prevent erosion. Observe by pouring water through the streams. It is also interesting to leave the stream table for several days to see what grows.

## EXTENSIONS

**Language Arts:** Write a journal as though you were a member of the Corps of Discovery. Read books about the expedition or about Sacajawea, i.e. *Streams to the River*, *Rivers to the Sea*.

**Social Studies:** Research what preceded the Lewis and Clark Expedition and what happened subsequent to the expedition. Present group or individual reports to the class. Research Meriwether Lewis, William Clark, and Sacajawea.

Play "Follow a Raindrop." Outside the school pretend that the ground is completely saturated with rain. A raindrop will not soak into the ground but will run off. Follow the terrain of the land to see where the raindrop will go. What larger waterways will it encounter? Use maps to determine where the raindrop will go after you have followed it as long as you can.

**Art:** Illustrate different events in the Lewis and Clark Expedition.

**Technology:** Do further research on the Lewis and Clark Expedition through the following web sites: (maps) <http://www.lib.virginia.edu/exhibits/lewis-clark/home.html>

(index of over 200 sites) <http://www.vpds.wsu.edu/LCExpedition/Resources/index.html>

(PBS video site) <http://www.pbs.org/lewisandclark/>

(game) <http://www.nantucket.net/schools/cps/knowledge/lewisandclark/index.html>

Lesson Plan Created by Master Teacher  
Sandra Calkins, Richfield Elementary School, Richfield, Idaho