

Changing the Course of the Red River Waterway

Grade Level: 6th through 9th

Goal: The learner will have a greater respect and understanding of the ways in which a river changes its course over time. The learner will understand the roles played by the Red River Waterway Commission, the Corps of Engineers as well as the importance of River management on commerce and recreation.

Objectives: With the use of a straw and colored ink or paint, the learner will be able to create a map of a fictional river course showing how it has changed directions over time.

Materials: Medicine dropper, colored ink or paint, drinking straws, scissors, paper sized 8.5x11 and Red River Waterway video

Time Allotment: 30 to 45 minutes plus 5 to 10 minutes of preparation and clean-up

Process:

1. Teacher and students will watch the video and discuss how a river changes its course over time. The teacher and students will discuss the importance of the Red River Waterway Commission and the Corps of Engineers and the role each plays to manage and maintain the Red River Waterway for commerce and recreation
2. The teacher will divide the students into groups of four. The teacher will provide one sheet of paper for each student and one small bowl of ink or paint, one medicine dropper, two straws and one pair of scissors for each group to share.
3. Using scissors, the students will cut each straw in half to make four straws. Each member of the group should receive their own straw.
4. Students will place one dropper full of colored ink or paint at the bottom of their paper. Using their straw, the student will blow upon the puddle of ink or paint until it begins to roll into a “river” forming a line moving up their paper.
5. The teacher will encourage the students to see how long and how continuous each student can blow their “river” of ink or paint.

(Teacher Tip: Keep the straw at a severe angle to the paper when blowing.)

6. The student will continue dropping small puddles of ink and blowing to form oxbows and tributaries in their “river” course. Allow a few minutes for the ink to dry. The student will label and date their fictional river map.

7. Using a different color, the students will repeat the process trying to keep their new “river” of ink close to the first. The student should create key points of departure between the first and second “river” courses. The student may repeat this process up to four times with different colors of ink. The student will label each subsequent “river” course with a later date.
8. The student will create a colored legend defining the different courses their “river” has taken through time. The teacher will encourage the student to imagine a significant event that happened in their “river’s” history that would have caused it to change its course. (Some examples may include flooding, droughts, natural log dams and construction efforts by the Corps of Engineers.)
9. Students will name their river.

Evaluation, Enrichment and Continuation:

1. The teacher will display all “rivers” for the class to study. The teacher and students will discuss the different paths that each person’s river took, as well as its number of tributaries and oxbows. The teacher and students will discuss the ways in which a river course changes over time. The teacher will encourage students to remember specific examples from the Red River Waterway video.
2. The student will create a fictional “historical” timeline of events based on their river map. The teacher may combine all maps into a booklet or classroom newsletter.
3. The teacher may schedule a classroom visit to the nearest Red River Waterway recreation area to observe tributaries and oxbows. The teacher may discuss conservation methods, River management or the importance of River quality to commerce and recreation.