

Title: Land Between Two Rivers

Recommended Grades: 3rd/4th grade

Time Needed: 25 – 35 minutes

Objectives: Students will.....

1. Locate and identify major rivers in Iowa and their flow.
2. Examine how the Iowa Rivers flow into the Mississippi River.
3. Introduce water quality testing.

Materials:

Preparation:

1. Prepare blue ropes.....Large rope for Missouri and Mississippi Rivers and smaller ropes for interstate rivers.
2. Larger ropes should have state name tags on them that identify the other states that the Mississippi and Missouri river flow through as they move “downhill” toward the ocean.
*(discuss Iowa’s elevation above sea level, on Map)
The smaller ropes should be put in zip lock bags with a duct tape label on the rope that identifies the river.
3. Handout. Iowa map one side /US map that emphasizes the Mississippi and Missouri Rivers.

Rules:

- **SHOES ARE NOT ALLOWED ON THE MAP. PLEASE HAVE STUDENTS REMOVE THEIR SHOES BEFORE WALKING ON THE MAP. BARE FEET ARE ALSO NOT ALLOWED ON THE MAP.**
- **WRITING UTENSILS ARE NOT ALLOWED ON THE MAP**

Activity: Students will trace the flow of Iowa rivers into the Mississippi.

Directions:

- Explain to the students that over 90% of Iowa’s landscape has been changed by human interaction. It was once all prairie and is now farmland and communities.
 1. Ask students why one of Iowa’s nicknames is the Land Between two Rivers, then identify the Missouri River and the Mississippi River.
 2. Have three students from one dot group trace the Missouri River with one of the large ropes. (ropes are in kit and identified)
 3. Have three students from one dot group trace the Mississippi River with one of the large ropes. (ropes are in the kit and identified)

4. Tell students that the two rivers connect south of Iowa. As a dot group, have them look at one of the US maps in the kit and determine where the Missouri and Mississippi connect or converge. (St. Louis, Missouri)
5. Connect the two larger ropes together at the approximate place where ST. Louis, Missouri would be located.
6. Have dot groups then identify where the Missouri River begins in Montana and the Mississippi River begins in Minnesota.
7. Discuss where does all the water flow (to the Gulf of Mexico/Ocean)
8. Have pairs of students draw names of rivers in Iowa. Then take turns having each pair trace with one of the smaller ropes, the flow of the river.
9. Discuss how all rivers of Iowa end up flowing into the Mississippi
10. Share the definition of watershed. Ask why the Mississippi River has the nickname, “the Muddy Mississippi”?
11. Back in the classroom: Have students respond to the question on a review sheet of paper. Use the sentence starter: The Giant Iowa GeoNat Map explains to me that.....
12. Back in the classroom: Share the bug Quality Charts in the kit. Explain to the kids that scientists from the state of Iowa determine if a stream flowing to the Mississippi is healthy by counting bugs and fish and testing the water for different chemicals.

Tips: Organize your class by using the color coded lanyards that correspond to the four corner dots

Have students sit down in the groups around the map.

Standards:

Iowa Core

Essential Concept and /or skill: *Understand how physical processes and human actions modify the environment and how the environment affects humans.*

- Understand the characteristics of places are shaped by physical and human processes.
- Understand that humans interact and adapt to the physical environment
- Understand ways to monitor science and technology in order to protect the physical environment, individual rights and the common good.
- Understand the representations of major physical and human features on maps and globes.

Vocabulary: Watershed, Erosions, Elevation, NatGeo, Quality