

## Lesson: The Changing River Part 1: Rio Bravo

*Ever wonder what the Rio Grande and the riparian land area used to look like before large cities and communities?*

4-ESS3- 2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans. Students who demonstrate understanding can:

4-ESS3- 1. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

**Rio Bravo:** Students will draw or recreate the Rio Grande either during or after the video

**Vocabulary Words:** Rio Bravo, Ecosystem, Abiotic, Biotic, Habitat, Riparian Habitat, Sand Bar, Cottonwood Trees, Ground Water, Saplings, Cattails, Grassy Meadows, Upland Shrubs

**Animals:** Turtle, Duck, Blue Heron, New Mexico Whiptail Lizard, Roadrunner, Cottontail Rabbits, Owls

**Activity:** Have students recreate the Rio Bravo model. Before watching the next video, students will be asked to think about: *How has riparian habitats changed because of us?*

## Lesson 2: The Changing River: Rio Manso

Students will be writing down definitions during the video and then recreate the Rio Manso model afterwards.

**Vocabulary Words:** Rio Manso, Ancestral Puebloans, Spanish Settlers, Agriculture, Acequia, Levee, Jetty Jacks, Dam, Human Impacts: (fire, invasive species)

**Activity:** Students will be recreating the Rio Manso model. After students complete the model have them think about these questions for part 3: *Why is flooding important? What efforts are we doing to conserve and help protect the riparian area today?*

## Lesson 3: The Changing River: Forest Health

Students will be writing down definitions during the video to later recreate the important components needed to support riparian forest health including habitat diversity examples.

**Vocabulary Words:** Human Impacts (buildings, roads, ditches, paths) Restoration, Conservation, Soil Diversity, Ground Water, Desert Willow, Screwbean Mesquite, Native vs Nonnative Species, Noxious Weeds

**Animals you would find in a riparian habitat:** coyotes, cottontail rabbits, prairie dogs, snakes, turtles, porcupines, squirrels, bullfrogs, migrating birds (ex, Sandhill Cranes that like to feast on grasses and cover crops in the riparian habitat)

**Next Steps:** Students can now create projects that relate to forest health and what is needed to create and sustain habitat diversity in the riparian area.



