

Lesson Plan #1 - Riparian Environment K-5

- Time:** 1 Day
- Curriculum:** Students use a variety of resources to create a representation of wildlife in riparian zones or an adopted area.
- Objective:** Students will; identify different organisms living in an adopted area, describe the ecological role of these organisms and how invasive weeds can change an environment and evaluate positive and negative effects from changes to an area.
- Materials:** Field Journals to be kept all year; construction paper; nature magazines, JHWMA pencils, Art supplies/posters for younger students; Writing materials for older students; sack lunches
- Goal:** Familiarize students with the area they will adopt, introduce relationships between organisms, map reading, field journals.
- Wyoming State Standards:**
- K-4th:** **Social Studies:** 5.1, 5.2, 5.3
Science: 1.1, 1.3, 1.6, 2.2d, 3.2a, 3.2b
Lang. Arts: 4th- 3.5; 3rd- 2.2d, 3.1, 3.5; 2nd-2.2a, 2.2b, 3.1, 3.5; 1st-3.1; **K-** 3.1
- 5th:** **Social Studies:** 5.2, 5.3
Science: 3.2c
Lang. Arts: 2.2b, 3.3, 3.4
- 8:30 – 8:50am:** Introductions; explanation of year-long study; pass out **field journals** (write names on them) inside cover = school name, town, state, country; discuss the area we will adopt and explain what the adoption means.
- 8:50 – 9:30am:** Map of local area, split class into two groups with short activities-
K-3- go over N,S,E,W and map key simplified map of area
4-5- N,S,E,W, map key and topographical information (identifying major landmarks) and maybe GPS introductions
- 9:30 – 10:00am:** Regroup and display large map of the area with the adopted area indicated. Review major landmarks in the area before moving on...Make a large class list of all organisms (native & non-native) found in their area. Define “invasive” & “non-native” giving examples. (Later on have students speculate in journal on how the invasives might get to their adopted area). Use reference materials to complete the list and confirm any unknown organisms, make sure to include noxious weeds on the list.
- 10-10:15 Break:** Drinks, bathroom breaks, or recess time
- 10:15 – 11:00am:** Using the art supplies, have students choose an organism and ask them to visually represent it on a large scale (construction paper size). Older students also need to spend some time researching their organism and listing facts on the back side of their art. Discuss habitat, niche, predator, prey, carnivore, herbivore. Have all students label the organism they have represented.
- 11:00am – 12:00pm:** Prepare to visit the adopted site, travel, and lunch (Bus arrives at 11am)

- 12:00 – 12:15pm:** Select a gathering place to which everyone can return for discussion, allow the students to explore the area but emphasize personal safety and regard for the habitat, let them compare what they actually find to what they represented in their organism art. Have students place their organism art appropriately within the habitat and have them return to the central gathering place.
- 12:15 – 12:45pm:** Ask each student to tell a little about their organism and it's role in the riparian zone and discuss with them how they all effect each other.
- Ask the students to consider things that might change a riparian zone. Ask them to define "invasive" and "non-native" again and point out anything that might represent these definitions. How do they effect the habitat? Also discuss other changes that may occur in the zone such as livestock, human recreation or nearby construction. Observe the surround area for ideas.
- Have one or two students remove their native plant organism art from the area, discuss what other organisms will be directly effected by the change. (example- insects would lose a food source and die off and fish would follow) Repeat with different organisms including the weeds and ask what the effect on the area would be if they were removed.
- 12:45 – 2:00pm:** Re-seed the area with native grasses/forbs. Discuss what types of plants are being planted and what they think will happen next year. Why is the Park so interested in restoring this area? Students will need to make their first entry in their **field journal**...
- *Must include season, date, time, weather, temperature, and description of area with every journal entry.
 - *Make predictions – what will the area look like in October for lesson #2? What will the weather be like in October? Will the site look different in October, how? What will the site be like in the winter? In the spring?
 - *Sketch a picture of your site, representing 3 organisms that you are observing.
- 2:00 – 2:45pm:** Travel back to the classroom. Collect journals. Begin weather graph.