

Exploring A Stream

Grade Level(s): 2nd and 3rd

Activity Duration: 60 minutes

Engage (5 mins):

- Who can tell me how many species (or types) of plants there are in the world? (Take a few guesses from students – there are 250,000 species of flowering plants in the world.) And who can tell me how many species of mammals there are? (~3,000) How about birds? (~9,000) Insects? (~900,000)
- Why are there so many different types of living things? Think-pair-share.
 - As a wildlife biologist, someone who studies animals in nature, it is important to know about plants and habitats to learn about what animals need to survive. For example, many species of bird populations are declining (there are less birds now than there were in the past). Learning more about habitats and sharing it with others can help us protect the habitats for birds, other animals, plants, and people! We've been learning about healthy riparian areas, even helped to restore one! Riparian areas are a type of habitat.
 - Today we are going to learn how the plants we planted helps animals survive. First, we'll learn about three different zones in a healthy riparian system. Then, we'll discover the features in those zones that help animals find food and shelter, things they need to survive.

Explore (10 mins):

- What are the three zones of a healthy riparian area (show riparian zone diagram or draw a picture to illustrate)?
 - Stream, Understory, Canopy
- What are characteristics of plants that belong to the zones in a riparian habitat?
 - Stream: plants tolerate being in water and provide places for fish, amphibians, and crustaceans to hide or lay eggs.
 - Understory: plants are grassy or shrubby; small animals can hide behind them and forage for food; plants in the understory don't get as tall as the trees in the canopy.

- Canopy: plants are tallest and have most access to sun; birds especially like the canopy for perching and hunting/catching insects.

Explain (25 mins):

- Let's work in groups to explore the 3 different zones of a riparian habitat. It's your job as scientists to explore the different characteristics of each zone, and prepare to tell the rest of the class about the riparian zone you studied.
- Divide class into groups of 3 or 4. Each group receives a riparian zone sheet, a riparian diagram, animal species profile cards, and a worksheet for each student.
 - In your groups, look at the species cards, sort them into riparian zone categories. Look at what the animals in the pictures are doing to decide which zone they prefer.
 - Note the riparian zone for your group, and select an animal card from that zone. Fill out worksheet.

Elaborate (10 mins):

- Now that you've learned about the zones of riparian habitat and some of the animals that live within them, take some time to think about what part of the animal helps it live in that zone.
- Choose a brave scientist in your group who would like to present to the rest of the class their animal and the riparian zone it lives in.

Evaluate (10 mins):

- Can you name one characteristic of each riparian zone? (i.e., define them, what makes them different from each other)
- Ask students to think about these questions for next time. In our next classroom visit, we are going to explore how animals and plants are connected in healthy riparian areas. Also, people are like animals and plants and also need healthy riparian areas. Think about ways you can help the environment.

Materials needed:

1. Activity worksheets, riparian zone half-sheets, riparian diagram, animal species profiles
2. Something to write with