

River's Edge Playground Learning Guide



Everyone head for the River's Edge!

Geared toward ages 6 months to 2 years, the River's Edge provides a safe, hands-on play area for our younger visitors. Below, you'll find information about river ecosystems and some ideas for exploring this section of the playground.

Background: Rivers, lakes, and wetlands are home to many aquatic and semi-aquatic plants. As with many ecosystems, these freshwater habitats are made up of interconnected smaller habitats, each of which relies on the other to function properly. Here are the groups of animals most often found in river ecosystems:

- **Fish:** aquatic vertebrates with gills and fins. Most fish also have scales (eels are an exception). Salmon, trout, steelhead, catfish, and perch can all be found in California freshwater ecosystems.
- **Amphibians:** ectothermic vertebrates that breathe through their skin and go through metamorphosis. Most live part of their lives in water and part of their lives on land. Because they breathe through their skin, they are vulnerable to changes in their environments and are therefore considered indicators of habitat health. Frogs, toads, newts, and salamanders all live near rivers and streams.
- **Reptiles:** ectothermic vertebrates that are covered with scales and have lungs for breathing. Common river reptiles include lizards, snakes, alligators, geckos, and turtles.
- **Birds:** endothermic vertebrates with feathers that lay hard, calcified eggs. Egrets, herons, eagles, and ducks depend on river ecosystems for survival.
- **Mammals:** endothermic vertebrates that have hair and produce milk for their young. River otters, hippopotamuses, capybaras, and beavers all live near rivers.

Food chains show how each living thing gets its food and depends on food sources for survival. A river example: the sun provides energy for grass → the grass is eaten by a grasshopper → the grasshopper is eaten by a frog → the frog is eaten by a snake → the snake is eaten by a hawk. When a non-native species is introduced, they eat native prey and often compete with native organisms which removes steps from the original food chain and affects the diets of all other organisms. You can help river ecosystems by keeping non-native animals and plants at home.

Act out animal movements!

- Follow along the river like an otter!
- Hop like a frog, swim like a fish, and fly like a bird!

Adaptation Activities

- Follow the river to see a sampling of wildlife that lives there. If you were an animal that lived near the river, what things would make you a better swimmer?
- How would you protect yourself from a predator if you lived near a river?

Words to Learn

Cattails: tall, reed-like marsh plants with cylindrical heads

Ectothermic: animals that cannot regulate their own body temperature

Endothermic: animals that have internally regulated, and often stable, body temperatures

Riparian: of, relating to, or situated on the banks of a river

Sculpture Connection!

Look for these river dwellers in the Sculpture Learning Plaza!

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|-------------------------------------|---|-------------------------------------|
| <input type="checkbox"/> Tardigrade | <input type="checkbox"/> Freshwater eel | <input type="checkbox"/> Hellbender |
| <input type="checkbox"/> Piranha | <input type="checkbox"/> Goliath frog | <input type="checkbox"/> Platypus |

