

Summer at the Library 2022

MAKE WAVES



Grades 3-5

Animal Superpowers

The Hudson and East Rivers are natural rivers around NYC and have been there for millenia! Do you know which animals have lived in these waters? What superpowers did these animals gain to help them survive? We'll learn what animal adaptations are and how they help animals to survive in their environments!

What will you learn?

- What animals live in NYC rivers
- What animal adaptations are and how they help survival
- Discovering your own superpowers for your environment

Materials:

- Plain and construction paper
- Cool craft stuff: googly eyes, pipe cleaners, string, glitter
- Markers and colors of any medium
- Scissors
- Glue

Instructions:

- Animals in the wetlands have evolved to live in the mix of fresh and salty water, like the Diamondback Terrapin turtle. River otters have fur to keep warm and have smaller legs for faster swimming in moving water.
- Animals in the shallows have shells for protection - like crabs, and have camouflage since they're closer to the surface - like striped bass.
- Animals at the shorelines have adaptations for being in and out of water. Sandpiper birds have small beaks to pick their food out of mud and soil.
- Animals in the deeper waters also have shells for protection - like mussels, oysters, and shrimp. The sturgeon, one of the oldest and largest animals in the Hudson,



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- **Create a self portrait, adding the superpowers you have for surviving and thriving in your home, neighborhood, borough, and city!**

Reflection Questions:

- If you went to the Hudson River, do you think you would see any of these animals?
- Why do you think many animals have left their homes in and around the Hudson River?
- If these animals, or if you, moved away, do you think these adaptations for survival would still apply?

Explanation:

The Hudson River estuary has 4 main habitats: tidal wetlands, aquatic plant beds, natural shorelines, and river bottom habitats. Each habitat has an important role to play in the Hudson River estuary, and as humans have been straightening shorelines, filling in wetlands, and dredging the river bottoms for ships, the Hudson River and its animals have suffered and the biodiversity has diminished.

The tidal wetlands are made up of freshwater and brackish water (a mix between fresh and saltwater). Animals that live here are diamondback terrapins (brackish water turtles), fiddler crabs, rails and killifish, river otter, turtles, bald eagles and other raptors, marsh wrens and herons, crayfish and dragonflies and blackbirds.

The shallow parts of the river and aquatic plant beds contain aquatic vegetation that help enrich the water with dissolved oxygen, provide shelter for small animals, and provide food for animals such as blue crabs, bait fish, ducks, osprey, striped bass, and American shad.

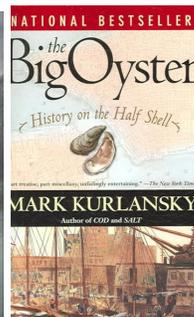
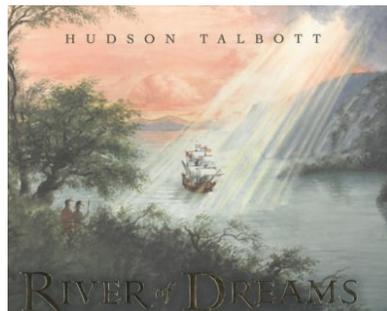
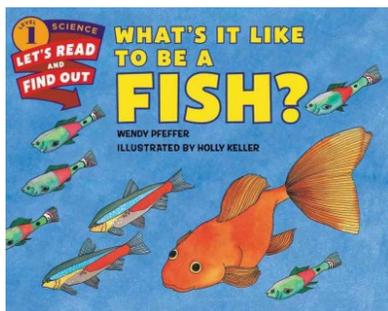
The natural shorelines are where land meets water and is home to sandpipers, land mammals, and different kinds of fish.

The river bottom habitat has mussels, oysters, sturgeons, and hogchokers.

This information is drawn from the [New York State Department of Environmental Conservation](#).

More to Explore at the Library:

Learn even more about the Hudson River by diving into these great titles below.



Guide by Joy Hariprasad.