Blue Planet Adventures

Design Intent

Dive into *Blue Planet Adventures*, where every drop tells a story and the wonders of water stretch as far as the imagination can swim. Wade through cypress knees and lily pads in the wetlands, where herons tiptoe through the shallows and turtles sunbathe on mossy logs. Then sink deeper into the mysteries of the ocean, where glowing jellyfish drift like lanterns and whales sing songs older than memory. Whether you're casting a line in a lake, paddling a kayak through winding bayous, or hauling nets from a shrimp boat offshore, water connects us. From the riverbank to the coral reef, this is a world of constant motion, endless discovery, and shared adventure. After all, no matter the depth, it's all part of the same big, blue planet.

Technology Components

- Magic Window - Collection of video clips
- Digital Microscope - A digital microscope is a powerful tool for encouraging curiosity and close observation. Children can use it to examine items from ocean, rivers, or lakes such as shells, fish scales, sand, feathers, algae, driftwood, or pebbles, noticing details they might otherwise miss, like tiny patterns and textures. It supports early science skills by helping children explore size, shape, texture, and color in natural water habitats. Using a magnifier also promotes language development as children describe what they see and ask questions about aquatic environments.

Mural Features

- Jellyfish - Jellyfish have been around for millions of years. They can be found all over the world, from surface waters to the sea. Jellyfish do not have a brain, heart, bones, or eyes and are comprised of 95 percent water.
- Common Bottlenose Dolphin - Common bottlenose dolphins are found throughout the world in both offshore and coastal waters. They are highly intelligent and use sound both for communication and to hunt for food. Bottlenose dolphins feed on a variety of prey, such as fish, squid, and crustaceans. They are one of the most studied marine mammals.

Mural Features

- Orca - Orcas are the largest members of the dolphin family. They live in family pods of up to 50 individuals. Calves do not leave their mothers when they become adults. Orcas hunt in packs and feed on a variety of prey, such as fish, seals, dolphins, sharks, rays, octopuses, and whales. Often, a pod will specialize in eating one type of animal.
- Coral - Coral is a marine invertebrate that lives in large colonies. Each individual coral, called a polyp, secretes calcium carbonate to build a hard skeleton, which forms coral reefs over time. These reefs provide essential habitats for aquatic life and protect coastlines from erosion.
- Green Sea Turtle - The green sea turtle is one of the largest hard-shelled sea turtles, typically measuring 3 to 4 feet long and weighing up to 400 pounds. It is the only sea turtle species that is herbivorous as an adult. Green sea turtles have a serrated beak designed for feeding on seagrass and algae, which gives their body fat a green color. These migratory marine reptiles thrive in tropical and subtropical coastal waters and often return to the same nesting beaches where they were born to lay eggs. Due to threats such as fishing bycatch and habitat loss, they are listed as endangered in many regions.
- Great White Shark - The great white shark is the ocean's largest predatory fish, partially warm-blooded for speed, has amazing senses, and lives in coastal and open waters around the world, especially in temperate seas. It eats fish, seals, sea lions, and other marine animals. Great white sharks can grow up to 20 feet long and weigh over 4,000 pounds.
- Giant Pacific Octopus - The giant Pacific octopus is the largest octopus on earth, weighing more than 50 pounds as an adult. They eat a wide assortment of seafood, most commonly crustaceans, such as crabs, clams, and muscles. The giant Pacific octopus lives an average of four to five years in the wild and typically dies after breeding. They can be found across the Pacific Ocean and are best adapted to colder, oxygen and nutrient-rich waters.
- Coral Reef Fish (Blue and Yellow Tropical) - Reef fish live among or in close proximity to coral reefs. They come in a wide range of colors, shapes, and sizes, with species like clownfish, parrotfish, and angelfish being well-known examples. Most reef fish are characterized by their sharp, bony rays and spines in their fins. Reef fish play a crucial role in maintaining reef health by controlling algae growth.
- Bluering Angelfish - The bluering angelfish is a large marine fish found in Pacific coral reefs, recognized by its yellowish-brown body covered with distinct blue lines and a prominent blue ring above the gill cover. Adults feature two blue stripes across their face, a white tail with a yellow margin, and an elongated tip on the dorsal fin, reaching up to 18 inches in length. They are popular in the aquarium trade but require lots of space due to their large size and typically feed on sponges.
- Clownfish - The clownfish is a small, brightly colored fish that usually grows to about 3–5 inches long. Clownfish live in the warm waters of the Pacific and Indian Oceans, especially around coral reefs where they shelter among sea anemones. They eat algae, plankton, and tiny crustaceans. Clownfish have a special mucus coating that protects them from the stinging tentacles of sea anemones, allowing the two animals to live together in a helpful aquatic partnership.

Mural Features

- Duck - A duck is a water bird with a wide, flat bill, webbed feet, and waterproof feathers. Because of their webbed feet, ducks are excellent swimmers. They can fly short distances and are known for their distinctive quacking sounds. Most ducks eat a mix of plants, insects, and small aquatic creatures.
- Great Blue Heron - The great blue heron is a large wading bird found near shores, marshes, rivers, and wetlands across North and Central America. This heron species stands around 4 feet tall, with a wingspan of up to 6.5 feet, making it the largest heron in North America. It is a solitary hunter, often standing still to spear fish, frogs, or insects with its bill. Great blue herons nest in colonies called rookeries, usually in tall trees.
- Great Egret - The great egret is a tall wading bird with all-white plumage, a long, slender neck, and a yellow bill. Commonly found in wetlands, marshes, and along shorelines, it hunts by standing still or slowly stalking prey like fish, frogs, and insects. During the breeding season, it grows long plumes on its back, which were once hunted. The great egret is smaller and thinner than a great blue heron.
- Neotropic Cormorant - The Neotropic cormorant is a small, slim waterbird with all-black plumage, a long tail, and a characteristic orange throat patch. Adults typically reach about 25 inches in length with a 39-inch wingspan, making them significantly smaller and sleeker than the similar double-crested cormorant. Their diet consists primarily of small fish ranging from 2 to 5 inches, but they are opportunistic generalists that also consume shrimp, frogs, tadpoles, and aquatic insects.
- Osprey - An osprey is a large, fish-eating raptor with a dark eye stripe and white and brown underparts. They are usually found over lakes, rivers, and coastal waters, diving feet first to catch fish with their talons. Ospreys build large stick nests in tall trees, poles, or platforms, often returning to the same site every year.
- Cattails - A cattail is a tall, reed-like wetland plant with long, slender leaves and a distinctive brown, sausage-shaped flower spike. Found near ponds, marshes, and lakes, it provides habitat for wildlife and helps filter water. In late summer, the flower head releases fluffy seeds that disperse in the wind.
- Common Snapping Turtle - The common snapping turtle is a freshwater turtle that can grow up to 20 inches long and weigh between 10 and 35 pounds. It has a powerful beak-like mouth, a long tail, and strong claws that help it hunt and protect itself. Snapping turtles are omnivores and eat fish, insects, frogs, plants, and even small animals they find in the water. They live in ponds, lakes, rivers, marshes, and slow-moving streams across much of North America, often resting along muddy bottoms or near underwater plants.
- Beaver - Beavers are the largest rodents in North America, weighing between 35 and 50 pounds as adults. They have stocky bodies covered in yellow-brown fur, broad flat tails, and strong front teeth. Beavers use their teeth to cut down trees and branches to build dams and lodges, which makes them highly impactful on their environment. They eat the bark, leaves, and twigs of trees such as aspen, willow, and birch, as well as aquatic plants.
- Alligator - Alligators are large reptiles that can grow up to 13 feet long and weigh more than 500 pounds. They have strong tails, powerful jaws, and tough, scaly skin that help them survive in the wild. Alligators are carnivores and eat fish, turtles, birds, and small mammals. They live in freshwater habitats such as swamps, marshes, rivers, and lakes throughout the southeastern United States.

Mural Features

- Western Diamondback Rattlesnake - The western diamondback rattlesnake is a venomous snake that usually grows between 3 and 5 feet long. It is known for the diamond-shaped patterns on its back and the rattle at the end of its tail, which it shakes to warn predators. Western diamondback rattlesnakes eat small animals such as mice, rats, rabbits, birds, and lizards. They live in deserts, grasslands, rocky canyons, and scrublands throughout the southwestern United States and parts of Mexico.

Themes to Explore

- Aquatic Animals (Salt Water vs Fresh Water)
- Aquatic Animal Homes
- Sink and Float
- Animal Life Cycles
- Weather and Climate
- Recreational Activities
- Preservation
- Careers
- Earth's Geography
- Water and Soil Exploration

Mounted Artifacts

- Sailboat - A sailboat is a watercraft that uses large fabric sails to catch the wind and move across the water. Sailboats can range in size from small one-person boats to large vessels over 100 feet long. They are commonly used for recreation, racing, fishing, and traveling on lakes, rivers, and oceans. Sailboats rely on wind power instead of engines, making them a quiet and environmentally friendly way to explore the water.
- Seagull - A gull is a medium-sized seabird known for its white and gray feathers, sharp beak, and loud calls. Gulls are often found near coastlines, lakes, and urban areas. They are opportunistic feeders that scavenge for food both on land and in water. Gulls usually nest in colonies, laying 2 to 3 eggs in shallow nests composed of stones, seaweed, mosses, and feathers.
- Coral - Coral is a marine invertebrate that lives in large colonies. Each individual coral, called a polyp, secretes calcium carbonate to build a hard skeleton, which forms coral reefs over time. These reefs provide essential habitats for aquatic life and protect coastlines from erosion.
- Leatherback Sea Turtle (Classroom Table) - Leatherback turtles are named for their shell, which is made of leathery, fatty tissue, rather than a hard shell. They are the largest sea turtle species and among the most migratory, crossing both the Atlantic and Pacific Oceans. The leatherback's diet primarily consists of jellyfish and salps, and nesting occurs on sandy beaches from late February, peaking in May.
- Pelican (Ceiling Graphic and Artifact) - Pelicans are large birds of eight species with short legs, but once in the water, strong swimmers. They are one of the only birds with a pouch under their bill, using it to catch fish and cool off in warm weather. As strong flyers, they travel in flocks and are known to reside along maritime and coastal zones, feeding on fish.

Mounted Artifacts

- Catch of the Day (Mounted Artifacts) -
  - Spanish Mackerel - Identified by its torpedo-shaped body, iridescent blue-green back, and rows of yellow-gold spots.
  - Red Drum Fish - Identified by a copper-bronze or reddish coloration and distinctive black spot near the base of the tail.
  - Flounder - Identified by its brown or gray coloring, flat oval-shaped body, and both eyes located on one side of the head.
  - Red Snapper - Identified by its vibrant red coloration and prominent reddish iris.
  - Yellowfin Tuna - Recognized by its vibrant yellow finlets and long, crescent-shaped dorsal and anal fins.
  - Nassau Grouper - Recognized by a brownish color, dark brown bars along the body, and a black saddle-like marking near the base of the tail.

List of Hansa Animals

- Seagull, Pelican, Mallard Duck

To Find Out More

- National Oceanic and Atmospheric Administration
- National Geographic: Oceans
- UNESCO: Ocean Literacy
- Texas Parks and Wildlife
- USGS: Lakes and Reservoirs