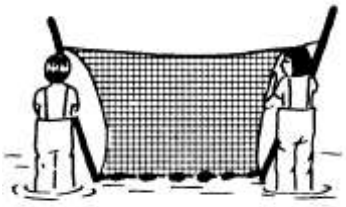
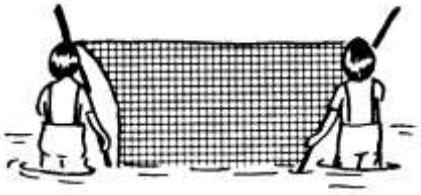
Supplement A:

Using the Seine Net

Step 1. Two students carefully unroll the seine net so the weighted side is in contact with the river bottom.



Step 2. Students walk out to hip-deep water, bumping poles along the bottom and tilting poles about 45 degrees (as pictured).



Step 3. Students stop walking and prepare to raise the net out of the water. Students should count aloud to 3 and coordinate their motions so they each flip their pole horizontally and raise the net out of the water and parallel to the surface of the water in one swift motion on "3".

Step 4. Students on the pier or a third student in the water can assist with getting the catch out of the net with their hands or a dip net. Hands should be wet when handling fish to prevent harming the fish's skin!

Supplement B: Indian Creek Species' Adaptations

Species (alphabetical order)	**Adaptations**
Alewife	Counter shading, spot on their body to confuse predators, large eyes, lateral line, adults live in the ocean and migrate to fresher streams or rivers to spawn
American Eel	Snake-like body, protective slime coating that allows them to migrate short distances on land, adults live in fresh to brackish water and travel to salt water to spawn
Atlantic Menhaden	Filter-feeder, counter shading, spot on their body, extremely slimy coat, lateral line
Atlantic Needlefish	Long slender body for camouflage
Atlantic Silverside	Streamlined body, forked tail for speed, opaque and silvery to camouflage
Bay Anchovy	Translucent body
Blue Crab	Shell, claws, antennae, swimming and walking legs, flaps that seal water in gills so they can move over land, hides in grasses during molting (soft shell)
Bluegill	Dark spot, spines on fin
Brown Bullhead Catfish	Barbels to find food in muddy water, counter shading
Comb Jelly	Transparent, filter-feeder
Common Pipefish	Camouflage—hides easily in eelgrass or seaweed beds, can change color like its cousin the seahorse
Grass Shrimp	Transparent body for camouflage, antennae
Hogchoker	Bottom dwellers, flatfish, camouflage
Killifish	Counter shading, bands or stripes to help camouflage in grasses
Margined Madtom	Spines, barbels
Mummichog	Counter shading, stripes and spots for camouflage, very pollution tolerant
Naked Goby	Bury themselves in mud in the winter, camouflage
Pumpkinseed	Black spot, spines, camouflage pattern
Sea Nettle Jellyfish	Transparent, stinging tentacles
Sheepshead Minnow	Camouflage, teeth to hunt prey, can withstand low oxygen levels
Striped Bass	Counter shading, lateral line, spines
White Perch	Spines, counter shading, lateral line
Winter Flounder	Bottom dweller, flatfish, camouflage, one eye migrates to the other side of the body
Yellow Perch	Adapted to living in brackish water (used to only live in fresh), spines, counter shading, lateral line

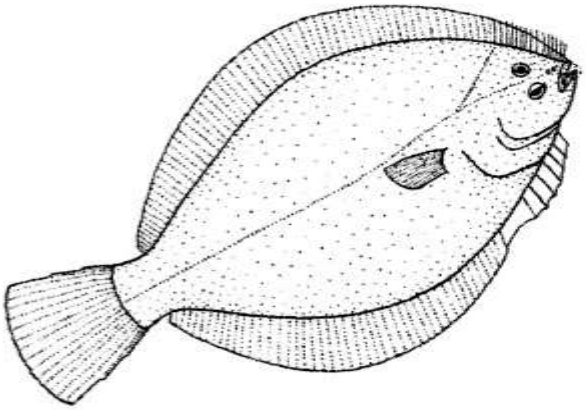
Supplement C: Adaptation Cards Cheat Sheet

Adaptation (alphabetical)	**Clue**	**Examples**
Antennae	We come in sets of two and help animals feel and sense changes in the water.	Grass shrimp, blue crabs
Barbels	Catfish need us to find food by touch and taste when it's hard to see in muddy waters.	Catfish
Camouflage	I help animals escape predators by blending in with their surroundings.	Pipefish, killifish, flatfish, grass shrimp—anything that can blend in with its surroundings
Claws	We're sharp and strong. Not only do we help crabs catch food and protect themselves, we also help them attract mates.	Blue crabs
Counter Shading	When fish have me, they look darker on top and lighter on the bottom. I help them blend in with both the water, when looked at from above, and the sunshine, when looked at from below.	Striped bass, menhaden, perch
Filter-feeder	I can separate small particles and plankton from the water as a source of food.	American oysters, Atlantic menhaden, comb jellies
Flatfish	I can live on the bottom of the water because my body is shaped like a pancake and my eyes are on the same side.	Hogchoker, flounder
Gills	We help animals take in oxygen from the water just like lungs help you take in oxygen from the air.	Almost all fish and many animals besides fish who live underwater (like crabs) have gills
Lateral Line	I run from the gills to the tail of a fish, allowing them to detect changes, sense vibrations, and stay balanced in the water.	All fish have some form of lateral line, it can be more easily seen in some species (like bass and perch)
Scales	I'm a fish's shining armor, protecting their body and making it comfortable for them to swim from side to side.	Most fish have scales
Shell	I support and protects a crab's body.	Blue crab
Slime	You probably think I feel weird, but fish love me! I coat their skin, helping them move smoothly through the water and protecting them from disease.	All fish have a slime coat, some—like menhaden—are extremely slimy
Spines	We make a fish look bigger and create problems for any predators trying to eat them. Be careful if you pick up a fish with us on its back, we can slice your hand!	Pumpkinseed, striped bass
Stinging Tentacles	Instead of scales, spines, or sharp teeth, jellyfish use us to capture prey and defend themselves from predators.	Sea nettles

Supplement D: Adaptation Station Journal Page

Adaptation Station

Draw a picture of one of the animals who lives in Indian Creek and label its adaptations.



Did you know?!

The winter flounder begins life with eyes on both sides of its head. After a few weeks its left eye migrates to the right side of its body, so that both eyes are on the same side and it can lie flat on the bottom.