Conservation & Ethics

THE JOE HUMPHREYS' FLY FISHING STREAM SCHOOL

CONSERVATION & STEWARDSHIP

Student Handout - The Angler's Code

For the grown-up (read this aloud to a Minnow, ages 6-10): Wet your hands before you touch a fish. Keep the fish in the water. If you lift it for a picture, count "one, two, three" and put it back. Hold it gently facing upstream until it swims away by itself. Pick up any fishing line or trash you see. Clean water is where the brook trout live, and the same water comes out of your tap at home.

"Without clean water in which these fish live, we're in bad shape. It starts right here. It starts at home." - Joe Humphreys

Part 1: The Keep Fish Wet Principles

Every fish you release is a gift to the next angler and to the next generation. These six practices protect the fish you've worked so hard to catch.

Practice	Why It Matters
Wet your hands before touching any fish	Dry hands remove the protective slime coat, causing infection and stress.
Keep the fish in the water as long as possible	A fish out of water cannot breathe - every second out counts.
3-second photo rule: camera ready before lifting	Prepare the shot before the fish leaves the water. Lift for 3 seconds at most, then back in.
Never hold a fish vertically	Internal organs can shift - causing fatal injury. Support at pectoral fins AND tail.
Soft release: hold facing upstream in gentle current	Wait until the fish pushes away on its own. Don't toss or drop it.
Use barbless or de-barbed hooks	Easier removal = less stress = better survival odds for the fish.

Part 2: The Spring Creek Story - How One Man Saved a Stream

This is a true story about what one person can do when they love a piece of water.

The Beginning: Joe's Classroom

When Joe Humphreys was a boy in State College, Pennsylvania, he spent his childhood fishing a small tributary called Thompson Run - a cold, clear spring creek that ran into Spring Creek. He would pedal his bicycle to the stream, fly rod across the handlebar, carrying three peanut butter sandwiches in a bag. "As I got older it was five peanut butter sandwiches - because I had

a great appetite," he says with a laugh. He spent hours observing trout, turning over rocks, watching insects. "Thompson Run was my classroom. I would view trout, watch them feed, watch where they went, how they lifted, how they positioned themselves. It was like they were laying out a plan for me."

Spring Creek itself was his lifeline. It flows 22 miles from the Tussey Ridge Mountains through the limestone valleys of Centre County. Joe's home sits on its bank. He has fished it for over 80 years.

The Crisis: A Stream Starts to Die

In the 1960s, highway construction rerouted a road through State College. It pushed the outflow from a stormwater retention basin - the Duck Pond - directly into Thompson Spring, which fed Spring Creek. The Duck Pond collected everything that washed off State College's roads and streets: motor oil, mercury, fertilizers, road salt, every chemical that cities produce. All of it was now pouring into Spring Creek.

Water temperatures climbed into the 80s and 90s - lethal for trout, which need temperatures in the 50s and 60s to survive. The wild trout disappeared. Joe watched it happen over years. "This was my treasure," he said. "This was my life. And I saw it going." "Seeing its demise was heartbreaking because I had so many wonderful childhood memories. I couldn't stand it."

"I don't know how I can do this. I don't know what I'm going to do. But I'm going to change this somehow." - Joe Humphreys

"What can I do myself? What can one man do?" - Joe Humphreys

The Solution: Five Guys Around a Kitchen Table

In the early 1970s, Joe gathered five friends around the kitchen table at his home on Spring Creek. They formed Spring Creek Trout Unlimited - its goal: divert Thompson Spring around the Duck Pond entirely. It happened by chance and stubbornness in equal measure. A construction company was already working at the pond when Joe and his crew arrived. A man named Whitey, one of the crew bosses, saw what they were trying to do. "How can we help you?" Whitey asked. Joe explained they needed to punch a hole through the concrete wall. "You're going to need a jackhammer," Whitey said - and handed them one.

They hammered through the concrete wall. They installed a pipe to carry Thompson Spring around the Duck Pond through a new channel - bypassing the contaminated basin completely and returning clean spring water to Spring Creek. What they did with hand tools and borrowed equipment, a handful of determined people accomplished what engineers had called impossible.

It worked. Spring Creek came back on its feet. Wild trout returned to water they had abandoned for decades. Today it is one of the premier fly fishing streams in the eastern United States.

"It was a dream coming true. I saw the salvation of Spring Creek. We beat the odds." - Joe Humphreys

A 60-Year Battle - Finished at Last

The work was not done in a season. It was not done in a decade. It took sixty years. Through setbacks, bureaucratic resistance, eroding dikes, and partial regressions, Joe and successive generations of Spring Creek Trout Unlimited members kept at it. They finished the final phase of the diversion in 2022. "Spring Creek is viable once again, full of trout, after all these years," Joe

said. Down at the Duck Pond today, there is a plaque on a large stone marking what they accomplished.

The lesson Joe draws from all of it: “It starts right here. It starts at home.” Conservation doesn’t begin in Washington, D.C. It begins with the person who loves the stream and refuses to watch it die.

Part 3: The Brook Trout - Your Stream’s Report Card

Brook trout are among the most pollution-sensitive freshwater fish in North America. They require cold, clean, well-oxygenated water to survive. They cannot tolerate warm temperatures, siltation, or chemical pollution.

Joe Humphreys describes them as “fabulous bio-indicators” (a living thing that tells you whether the water is healthy). If brook trout are present in a mountain stream, the water is clean. If they disappear, the stream is degraded - and very often, that same stream supplies drinking water to nearby communities. “They serve as an early detector of poor water quality,” Joe says. “The same streams where brook trout live are often the same streams where we get our drinking water.”

The Rule: Brook trout = clean water. No brook trout = a warning sign that something is wrong upstream.

What Brook Trout Need

Temperature: Water temperature below 68°F (ideally 50-64°F)

Oxygen: High dissolved oxygen - fast, clean, well-aerated water

Spawning habitat: Clean gravel for spawning (they spawn in autumn)

Shade: Riparian vegetation (trees and shrubs along the bank that shade the water)

Water quality: No agricultural runoff, road chemicals, or sewage discharge nearby

Brook trout are also Pennsylvania’s state fish - and one of the most strikingly beautiful animals in North America, with their orange-red belly spots rimmed in blue, and their worm-patterned backs. Joe says it simply: “To catch a brook trout in all its regal beauty - it’s gold to me.”

Part 4: The Green Drake Hatch - Nature’s Water Quality Test

Once a year, usually in late May or early June, a remarkable event occurs on the finest limestone streams of Pennsylvania: the Green Drake hatch. The green drake is one of the largest mayflies in North America - a dramatic, two-inch insect that emerges from the stream bottom, drifts on the surface to dry its wings, and then flies away.

Joe Humphreys calls it “the Memorial Day Classic.” The hatch is impossible to predict exactly - it depends on water temperature, barometric pressure, and conditions that only the stream knows. But when it arrives, the trout go into a feeding frenzy. Big fish that have been invisible for weeks rise to the surface and feed aggressively.

But the green drake is also a conservation barometer. Like brook trout, green drakes require very clean water. They are “adverse to pollution,” as Joe says. “A lot of streams don’t have green drakes because they don’t have the water quality.” A stream with a strong annual green drake hatch is a healthy stream. A stream that once had the hatch but doesn’t anymore is a stream that has been degraded.

“Such a phenomenon - the life cycle of that fly really stirs the fish into activity. This is one of my favorite times to fish.” - Joe Humphreys

Part 5: What You Can Do Starting Today

On the Stream

Pick up monofilament and litter from stream banks - fishing line kills wildlife

Never wade through spawning beds (light-colored gravel in late fall and early winter)

Don’t cut or trample streamside vegetation - it shades the water and holds banks together

Practice careful wading - disturbed gravel smothers insect eggs and fish eggs downstream

Report pollution, unusual fish kills, or foamy discoloration to your state fish and wildlife agency

At Home

Never pour oil, paint, or chemicals down storm drains - they flow directly to streams

Pick up pet waste - it adds nitrogen and bacteria to stormwater

Ask your family to use phosphate-free fertilizers or no fertilizer on lawns near streams

Learn which stream is nearest to your home and where it goes

In the Community

Join or support your local Trout Unlimited chapter (youth membership available)

Participate in stream clean-up events

Teach someone younger than you what you’ve learned about stream health

Tell the story of Spring Creek to anyone who will listen

The Angler’s Pledge

I promise to treat every fish with respect. I will keep them wet, handle gently, and release them strong. I will leave the stream cleaner than I found it. I will speak up for clean water. I fish with care today so others can fish with joy tomorrow.

“Joe’s Corner”

“I have fished for over ninety years. What we caught and what we shot - that’s what we ate. That is just the way it was. Those fish were not trophies. They were dinner. They were survival. And because of that, I have never once taken a stream for granted. Take care of the water, and the water will take care of you.” - Joe Humphreys

Fast Facts: Why Clean Water Matters

What Trout Need	The Number
Water temperature	Below 68°F (stop fishing above this - heat stress kills trout)
Dissolved oxygen	Above 6 mg/L

What Trout Need	The Number
pH range	6.5 to 8.5
Visibility	Clear water preferred; silt smothers eggs
Riparian buffer (the trees and bushes along the bank)	Trees within 50 feet of bank critical for shade