The Joe Humphreys' Fly Fishing Stream School

Weekend Intensive Curriculum

Youth Fly Fishing Curriculum - Ages 6-17 - Inspired by the Methods of Joe Humphreys

"The secret of life is having something exciting to look forward to. And fly fishing is that - you're going fishing."

- Joe Humphreys

The Weekend Intensive

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Program Overview

The Joe Humphreys' Fly Fishing Stream School Weekend Curriculum is a three-day intensive experience designed to teach young fly anglers the foundational skills, water-reading abilities, and advanced casting techniques pioneered by Joe Humphreys. It builds toward independent fishing and introduces students to the conservation principles that every angler carries for life.

Weekend Goals

Understand fly rod, reel, and line systems

Execute the Short Stroke cast with thumb-squeeze mechanics

Tie essential knots from memory: Davy Knot and Double Surgeon's

Read water features and identify where trout hold

Execute the Tuck Cast to achieve quick depth

Navigate tight streams using restricted-space casts

Complete a Look Up moment - experiencing the stream as a whole environment

Complete a conservation action and understand the Spring Creek story

Staffing

Enrollment	Instructors required
1-5 students	2 adults minimum: one certified Harvey Leader (the Lead Instructor) plus a second cleared adult
6-10 students	Lead Instructor plus 1 Harvey Leader
11-15 students	Lead Instructor plus 2 Harvey Leaders

1 instructor per 5 students, never exceeded; minimum two cleared adults on site at all times, whatever the headcount. A Lead Instructor is required on site for every Weekend Intensive. Youth Helpers (14-17) never count toward the ratio and are never alone with a student.

Safety Standard (applies all weekend)

Tier	Wading depth
Minnow (6-10)	Ankle deep, PFD on, instructor within arm's reach
Brook Trout (11-13)	Knee deep
Brown Trout (14-17)	Mid-thigh
Every tier	Never above the belly button, never alone, always with a wading partner and a Harvey Leader in sight

PFDs required for all Minnow-tier students and any non-swimmer whenever they are in or beside moving water; Brook and Brown tiers wear one when the Lead Instructor calls it (depth over the knee, cold water, or current). Wading belt on every student in the water, any depth. Eye protection on every student, every block. 30/30 lightning rule. No fishing in water above 68 degrees F. Two rod lengths between casters.

Master Equipment Checklist

Echo Gecko 3-4 wt rods or equivalent (ages 6-10)

Redington Path II 4-weight or 5-weight, or equivalent (tweens and teens)

Quality floating fly lines (any reputable brand)

9-foot tapered nylon leaders

Tippet: 3X, 4X, 5X, 6X nylon monofilament (nylon for the leader and for dry flies; fluorocarbon only as an optional nymph tippet for the Brown Trout tier)

Strike indicators (yarn or foam)

Split shot, tin or tungsten only (Brown = medium, Yellow = light, Black = heavy)

Stream thermometer, nippers, forceps, throw rope, rubber landing net

Eye protection for every student - no glasses, no rod in hand (prescription glasses acceptable; safety glasses provided)

Wading belts - MANDATORY for all in-water students

Wading boots with good grip

PFDs / life jackets: one per Minnow-tier student and any non-swimmer (count from the registration packet), plus spares

First aid kit

FRIDAY EVENING - Foundations & Flow

Theory and Dry Land Mechanics | 1 Hour

Friday evening sets the foundation for the entire weekend. Students learn equipment anatomy, execute their first Short Stroke casts, and tie the knots they will use on the water. Open with a brief introduction to Joe Humphreys - the man behind the method.

Learning Objectives

Understand fly rod, reel, line, leader, tippet, and fly components

Execute the Short Stroke cast with proper thumb-squeeze mechanics

Tie the Davy Knot from memory

Tie the Double Surgeon's Knot for connecting tippet sections

Timing Breakdown

Segment 1: Welcome & Equipment Anatomy - 10 minutes

Begin with an energetic welcome. Set tone: fun, learning, community. Lay out a complete fly setup and point to each component. For younger students: "The rod is a lever. The reel holds line. The leader and tippet are invisible strings that don't scare the fish."

Brief Joe Humphreys introduction: "Everything we are doing this weekend comes from one man - Joe Humphreys. He's been fishing since he was six years old. He taught at Penn State for 19 years. And at age 97, he says the secret to life is simple: 'Have something exciting to look forward to.' That's what this weekend is going to give you."

Segment 2: The Short Stroke Cast - 20 minutes

Joe Humphreys developed the short stroke by necessity, fishing brushy Pennsylvania limestone streams where the traditional 10-to-2 stroke didn't work. The trees were too close. The banks were too tight. So he shortened the stroke - and the loop got tighter, the cast got more accurate, and he could fish water nobody else could reach.

"Wrestling and fly fishing? They're both physical sports. Secondly, the technique is so important. There's technique and smarts involved. You have to have great fly control so that the fly will float perfectly, drag-free." - Joe Humphreys

Demonstrate wrong way: long, rigid stroke, wide loop

Demonstrate right way: short, compact stroke, thumb squeeze at stops

Have all students cast at hula hoops at 20, 30, and 40 feet. Minnows: hoops at 15 and 20 feet only.

The cue is hand and forearm: thumb to elbow one piece, elbow at the ribs, stop it, drift it, tap it. The wrist never breaks.

Key coaching point: "The thumb squeeze is the engine. Everything else is delivery."

Segment 3: Knot Tying Laboratory - 20 minutes

Start with paracord for Davy Knot practice - larger scale builds muscle memory faster

Four steps: through the eye, cross over, through the loop, wet and pull

Race the clock, not each other: each student times their own tie and beats their own best

Then teach Double Surgeon's on actual tippet

Segment 4: Preview & Homework - 10 minutes
Preview tomorrow: "At breakfast, think about where you would hold if you were a trout. Tomorrow morning we find out." Hand out the At-Home Practice Sheet for after the weekend (water tasks only with a parent present; no rod needed, a stick or a wooden spoon teaches the stroke).

LOOK UP MOMENT: Deliver the Look Up moment here - outdoors, even briefly. Ask: what sounds can you hear right now that have nothing to do with fly fishing? Build the habit from Day 1.

Age Adaptations
Minnow (6-10): Shorten the teaching segments to 45 min total; focus on roll cast and simple identification. Fill the last 15 minutes with a bug-card matching game or a hoop game at 15 feet so the hour stays full and active.

Ages 11-13: Full segment as written; introduce roll cast as bonus

Ages 14-17: Add leader/tippet sizing theory; ask them to explain the Davy Knot to a younger student

SATURDAY MORNING - Depth & Drift
Reading Water & Tactical Nymphing | 2 Hours

Saturday morning is where everything becomes real. Students move to actual water, learn to read it, and execute nymphs to depth. This session follows Joe's core principle: observation before action.

Learning Objectives
Identify water features: riffle, run, pool, seam, eddy

Understand trout behavior and energy conservation

Collect and identify aquatic macroinvertebrates

Rig a nymphing setup with proper leader length

Execute the Tuck Cast to achieve rapid depth

Hour 1: Ecological Observation & Water Reading

Stream Ecology Walk - 20 minutes
Divide students into pairs with kick-seine nets. Collect and identify macroinvertebrates from riffle sections.

Mayfly nymphs: three tails, gill plates - most important hatch food

Stonefly nymphs: two tails, flat body - indicate clean water

Caddis larvae: caterpillar-like, building stone/stick cases

Midges: tiny, red or brown

Freshwater scuds: shrimp-like - “This is exactly what Joe tied from his mother’s sewing basket at age 10”

Tell the Thompson Run orange shrimp story here.

Reading the Water - 20 minutes

RIFFLE: fast, shallow, food conveyor belt - insects living on the rocks

RUN: steady, medium speed, 2-4 feet deep - comfortable trout holding water

POOL: deep, slow, refuge for big fish

SEAM: the money zone - transition between fast and slow water

EDDY: slack water behind rocks - but current runs backward

Teach the energy principle: trout hold where food value exceeds energy cost. They want the most food for the least effort.

Rigging for Nymphing - 20 minutes

Leader length: water depth x 1.5 = leader from indicator to fly

Split shot: 8-10 inches above fly

Strike indicator: small foam or yarn - set the indicator-to-fly distance with the formula above (1.5 x water depth)

Fly connection: Davy Knot

LOOK UP MOMENT: The LOOK UP MOMENT happens naturally here, when students are on the bank waiting or between exercises. Stop the group. Ask: what sounds do you hear? What animals are present? What is the light doing on the water right now?

“Look up. You’ve been staring at the water from the moment we made the first cast. I’d like to stop and live the moment.” - Joe Humphreys

Hour 2: The Tuck Cast on Water

Hour 2 arithmetic: tuck review 10 + snack and water break 15 + on-water practice 35 = 60 minutes.

Tuck Cast Mechanics - Review - 10 minutes

Overpowered stroke - load the rod fully

ABRUPT HIGH STOP at 12 o’clock or higher - no follow-through

Then WAIT: feel the pull of the weights behind you and see the rod tip bounce. The bounce says go. Not before. Let the fly tuck under on the bounce.

Rod flexes downward, kicking fly under leader

Nymph enters water nearly vertically - sinks fast

Snack, water, and bathroom break - 15 minutes

On-Water Practice - 35 minutes
Move to the bridge hole (the deep pool under a bridge) or a stocked pool

Each student: 10+ tuck casts - watch for indicator ticks (bottom contact)

When indicator ticks: “THAT’S DEPTH - that’s exactly where you want to be”

When indicator moves oddly: “SET THE HOOK” - practice the hookset

When fish hooked: “Bent rod! Keep tension! Don’t give slack!”

Minnow adaptation (6-10): the tuck itself can wait a few years. While older tiers run tuck reps, Minnows run two 25-minute rotations with an instructor at arm’s reach (plus the shared break): (1) the rigging game and indicator-watching from the bank with a yarn fly - yell SET when the indicator twitches; (2) short stroke and roll cast to a marked seam in ankle-deep water, PFD on. Their win is a tick: yell it, celebrate it.

SATURDAY AFTERNOON - Dry Flies & The Tight Brush
Advanced Casts & Surface Presentation | 2 Hours

Learning Objectives
Execute the Bow-and-Arrow cast with full safety compliance

Understand drag-free dry fly presentation

Identify rise forms and what they indicate

Fish dry flies to rising or holding trout

Hour 1: The Bow-and-Arrow Cast

Why This Cast Exists - 15 minutes
Joe Humphreys grew up fishing streams tunneled over by rhododendron and hemlock. The best wild trout hold in water no one else can reach because no one else can cast there. In Live the Stream, he films a casting sequence in tight brush that he says he doesn’t think has ever been recorded before. This cast is the key to water everyone else walks past.

Safety First
SAFETY: Grip the fly at the bend of the hook, point facing away from the palm - never near the point. Younger students grip the leader just above the fly instead. This is non-negotiable. Demonstrate wrong grip before teaching correct grip. Review before every station.

Station Progression - 45 minutes
Station 1: Open target - practice mechanics on a clear path

Station 2: Low branches - deliver under a 3-foot high obstacle

Station 3: Narrow window - hit a hula hoop through a 3-foot gap

Note for instructors: The week-long Summer Camp adds a fourth station for this cast - an Accuracy Challenge targeting rings at distance. That station is omitted from the Weekend

Curriculum for time. If your group moves quickly through Stations 1-3, you may add it using the Summer Camp guide as a reference.

Ages 6-10: stations 1 and 2 only; Ages 11+: all stations

Hour 2: Dry Fly Presentation

Hour 2 arithmetic: what makes a dry fly float 10 + snack and water break 15 + drag-free drift and rise forms on water 35 = 60 minutes.

What Makes a Dry Fly Float - 10 minutes

Hackle fibers perpendicular to hook shank - support the fly on surface film

Elk or deer hair - trapped air, buoyancy

Foam - non-absorbent

Snack, water, and bathroom break - 15 minutes

Drag-Free Drift and Rise Forms on Water - 35 minutes

Cast upstream and slightly across - let the fly drift naturally downstream

Mend: flip line upstream after the cast to extend the drag-free window

The greatest mistake: setting the hook before the fish has the fly - PAUSE, then set

"These fish don't want the flies swinging down over them. They want a perfect natural drift." - Joe Humphreys

Reading the Rise Form

Sipping ring: gentle, selective - fish eating small insects in the film

Boil/swirl: aggressive take - fish moving quickly to the fly

Splash: often a miss or a small, eager fish

LOOK UP MOMENT: Saturday Closing - LOOK UP MOMENT: Walk to the best viewpoint on the stream. One minute of silence. Ask: 'What is Joe Humphreys doing right now at his age?' He's probably right here - doing exactly this. Let that sit.

SUNDAY - Synthesis, Conservation & Mentorship

Pulling It All Together | 3 Hours

Morning Block (2 hours): Independent Fishing

Arithmetic: opening circle 15 + independent fishing 90 + snack and water break 15 = 120 minutes.

Opening Circle - 15 minutes

Read Joe's words from Live the Stream:

"Every day on the stream is an adventure. And as a teacher, if I've passed some good things on - not only the how-to, the nuts and bolts - but an appreciation of nature itself - that's what it's all about." - Joe Humphreys

Students choose one technique from the weekend to execute independently

Must observe for 5 minutes before first cast

Must select fly and tie it on with a Davy Knot

Independent Fishing - 90 minutes (snack and water break - 15 minutes - at the midpoint)
Instructors observe but intervene only for safety or when explicitly asked

Safety: buddy system, wading belts on every student in the water, the tier wading-depth table and PFD rule from the Safety Standard above, the 1:5 instructor ratio, and the two-adult rule apply exactly as written

Minnow adaptation (6-10): run the block as three 25-minute rotations with a Leader at arm's reach (the same pattern as Series Session 6): indicator nymph in the softest water, bank bug tray, and the seam game. No hands-off independent fishing for this tier.

Older students mentor younger students - pair them deliberately

Document: how many students make an independent tactical decision and fish it successfully?

Afternoon Block (1 hour): Conservation Session

The Spring Creek Story - 20 minutes
Tell the full Spring Creek story: highway construction, Duck Pond contamination, water temperatures in the 90s, wild trout disappearing, Joe founding Spring Creek Trout Unlimited, the jackhammers, the concrete wall, the pipe, and the stream coming back.

"This was my treasure. This was my life. And I saw it going. I don't know how I can do this - but I'm going to change this somehow." - Joe Humphreys, on Spring Creek

"What can I do myself? What can one man do? It starts right here. It starts at home." - Joe Humphreys

Brook Trout Discussion - 10 minutes
Brook trout as bio-indicators: their presence means clean water

The same streams where brook trout live often supply drinking water

Joe: "To catch a brook trout in all its regal beauty - it's gold to me."

Conservation Action - 20 minutes
Stream clean-up: monofilament, litter, debris from riparian zone

OR: water quality testing with test kits

OR: macroinvertebrate survey - compare to Saturday morning's kick-seine results

Closing Circle - 10 minutes
FINAL LOOK UP MOMENT: Stand at the water. One minute of silence.

"These waters are filled with miles of endless memories. The springs are my heart. Their waters are the course of my life story. And there are trout - the friends I want to see flourish for lifetimes to come." - Joe Humphreys

Ask each student: one thing they will remember from this weekend

Badge Moments (Set A ladder): sign what was earned this weekend at the student's own tier standard: Knot Tier (Minnow: Davy + Double Surgeon's; Brook Trout adds Improved Clinch + Perfection Loop; Brown Trout all five), Cast Tier (14+/20 at tier distance), Rig Tier (the 6-step rig), Stream-Reading and Bug Tier (3 seams named, core bugs matched), Steward Tier (keep-fish-wet with a 3-second lift, Clean/Drain/Dry). All five at tier standard = Stream School Angler.

"We never stop learning. The good Lord made it that way." - Joe Humphreys

TAKE IT HOME

Give every student a piece of paracord and a small carabiner to clip to their backpack.

Knot:

Tie the Davy Knot onto the carabiner once a day. Quarter-inch tag end. One firm tug.

Casting:

Use a wooden spoon or dowel. Stand sideways at a mirror. Ten short strokes - feel the thumb squeeze at the stop.

Observation:

5 minutes outside. Sit still. Record one sound, one insect, and wind direction in a notebook.

See the Take-Home Practice Challenges handout for the full weekly tracker and journal prompts.

Certificates: print Program Completion certificates (Badge and Patch Program, Certificate 1, format line "Weekend Intensive"); declare any Stream School Anglers with Certificate 2

Student Handouts (print one set per student from joehumphreysyouth.org)

ss-handout-casting-card.pdf - Casting Reference Card

ss-handout-knot-guide.pdf - Knot Guide

ss-handout-water-reading.pdf - Water Reading Guide

ss-handout-insect-id.pdf - Aquatic Insect ID

ss-handout-conservation.pdf - Conservation Ethics Card, includes the full Spring Creek story and brook trout section

ss-handout-equipment.pdf - What the Program Provides and What to Bring