The Joe Humphreys' Fly Fishing Stream School

Summer Camp - Complete Week

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 Week-Long Summer Camp

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Camp Overview & Philosophy

Joe Humphreys spent over 80,000 hours on trout streams. He's taught tens of thousands of students over a career spanning nearly seven decades. He taught physical education at Penn State University, coached wrestling, boxed, built fly fishing programs from scratch, hosted the first fly fishing series on ESPN, and led conservation efforts that saved Spring Creek - the stream that runs behind his home.

This camp follows Joe's method: Observation Before Action. We spend as much time watching the water as fishing it. We learn to tie the flies we fish. We study the insects trout eat. We read every ripple and seam. And we fish with intention - never casting until we understand why.

Required for all instructors before delivering this program: watch the documentary film Live the Stream (2018) in full. The film follows Joe across the streams and memories of his life. Stories, quotes, and scenes from it are woven throughout this curriculum.

Our Goal for Every Camper

By the end of this week, you will understand the stream, tie flies, execute advanced casts, read water on your own, and become a steward of trout habitat. You will fish a piece of water on your own. And you will have something extraordinary to look forward to for the rest of your life.

Camp Hours, Enrollment, and Staffing

Daily hours: 9:00 AM to 4:00 PM, Monday through Friday. Drop-off 8:45 AM, morning block 9:00 to 12:00, lunch 12:00 to 1:00, afternoon block 1:00 to 4:00, pickup 4:00 PM. Day 4 (Thursday) runs late for every tier on this timeline: regular day 9:00 to 4:00; supper 4:00 to 4:30, provided by the program; Open Bench 4:30 to 6:30 (supervised: fly tying bench, knot practice, lawn games, rest); then 6:30 to 8:00 both at once - the dusk session on the water for the Brown Trout tier (14-17) at 1:3, and the Camp Evening Program for everyone under 14 with two adults; pickup 8:00 PM for everyone, parent pickup required. Brown Trout campers fish the dusk session only with the separate written dusk consent, and every camper is signed out by a parent or authorized adult. Campers bring a packed lunch Monday through Friday; every 3-hour block carries a 15-minute snack and water break.

Enrollment cap: 20 campers.

Who	Minimum staffing
Any camp, any day	4 certified Harvey Leaders plus 1 Lead Instructor (1:4 effective, satisfies 1:5); minimum two cleared adults at every activity
Minnow rotations (Days 1-4)	One adult per station; when Minnows are in rotations, count the stations against staff and state it in the day plan
Day 4 dusk session, Brown Trout (14-17)	1:3 on the water: maximum 9 campers per 3 instructors
Day 4 Camp Evening Program, under 14	At least 2 adults, separate from the dusk-session staff

Youth Helpers (14-17) never count toward any ratio and are never alone with a camper. Harvey Leaders certified per the Harvey Leader Certification Standard count in ratio; nobody else does.

PFD rule: Minnows (6-10) wear a PFD whenever they are in or at the edge of moving water, including the Day 1 pond; Brook and Brown tiers wear one when the Lead Instructor calls it (depth over the knee, cold water, or current). The program provides them.

Wading depth by tier:

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

Camp Goals

Read: Read water independently and identify trout holding positions

Tie: Tie at least two fly patterns from scratch - and catch a fish on one

Cast: Execute the short stroke, tuck cast, bow-and-arrow, and Downer-Upper cast

Entomology: Understand the aquatic insects trout eat and match them to fly patterns

Conserve: Practice and explain catch-and-release ethics and conservation principles

Observe: Complete a Look Up moment each day - living in the whole environment

5-Day Camp Overview

Day	Theme	Motto
Monday	Stream Ecology + Casting Basics	*"Observe Before You Cast"*
Tuesday	The Fly Tying Connection	*"To Deceive the Fish, First Understand Its World"*
Wednesday	Nymphing - Getting to the Bottom	*"The Fish Lives on the Bottom. Go There."*
Thursday	Dry Flies, Tight Brush & The Night Game	*"The Best Anglers Fish With Their Ears As Much As Their Eyes"*
Friday	Synthesis, Conservation & Legacy	*"You Are Now a Steward of the Water"*

The Daily "Look Up" Moment - Required Every Day

Joe Humphreys has a teaching habit he practices on every single day on the water. At some point during the session, he stops fishing, turns to whoever is with him, and says: "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."

He might point to a red-wing blackbird on a cattail. The shape of clouds moving across a ridge. Sunlight hitting a wet log. The sound of a riffle around a bend. "Those are cherished moments," he says. "The good Lord has given us such a beautiful place to fish. When you don't take time to recognize and appreciate it - you're missing part of the game."

Every day of this camp includes a dedicated Look Up moment. It is not a break from the curriculum. It is the curriculum. The habit of noticing - really noticing - the world around a stream is what transforms a fisher into a steward.

DAILY RITUAL: INSTRUCTOR CUE: At a natural pause each day - after a good catch, at a beautiful bend, or when you see something the students might miss - stop everything. Say: 'Look up.' Then point it out. Let the silence hold for thirty seconds before continuing.

Day 1: Monday - "The Anatomy of the Stream and the Angler"

Theme: Stream Ecology + Casting Basics | Motto: "Observe Before You Cast"

Morning Block (3 hours): Hydrology & Entomology

Arithmetic: opening circle 20 + ecology walk 50 + kick-seine 55 + snack and water break 15 + wading rules on dry land 15 + reading water 25 = 180 minutes.

Minnow pacing (6-10): Minnows get a 10-minute "first swing" with a rod on the lawn inside the opening circle, run the kick-seine as their first block, and walk the stream for 30 minutes, not 50. Each Minnow station has its own adult.

Opening Circle - 20 minutes
Welcome, introductions, camp safety rules

Introduce Joe Humphreys: show key facts (80,000+ hours on stream, 19 years at Penn State, fly-caught state record brown trout, documentary Live the Stream)

Play the opening 5 minutes of Live the Stream - Joe at the stream

Ask students: “What does Joe say fly fishing gave him?” - guide to the answer: “The secret to life is having something to look forward to.”

Before the first cast of the week, share this story: Joe was once asked if he could teach a busload of fifth graders - fifteen ten-year-olds - at Fisherman’s Paradise. In a short time, they were all casting beautifully. That evening, the teacher called: one girl caught three trout, a boy caught four, another got three more. Joe had missed the only fish he hooked himself.

“I just got outfished by a busload of fifth graders. Nobody will ever have all the answers. It is always humbling.” - Joe Humphreys

Start Day 1 with this story because it sets the tone for the entire week. The stream is a great equalizer. Begin with humility.

“I was on my bicycle with the fly rod across the handlebars, three peanut butter sandwiches in my pocket. Thompson Run was my classroom. What we caught and what we shot is what we ate. That is just the way it was.” - Joe Humphreys

Distribute camp journals - students document one observation each day

Ice breaker: “Where would YOU hold if you were a trout right now?”

Stream Ecology Walk - 50 minutes (Minnows: 30, after the seine)
Walk along the stream WITHOUT fishing gear. This is observation time only.

Current speed variations: riffle, run, pool, seam, eddy - identify each

Upstream approach: demonstrate crouching, slow wading, downstream-first observation

Joe did not just crouch - as a boy, he crawled to the stream. On his belly, through the morning dew-soaked grass. ‘I learned to crawl because when I walked up to the stream, the fish went everywhere.’ Before students wade for the first time, make this real: the stream sees them before they see it. Their shadow. Their footsteps on the bank. Their reflection. Stealth is the first skill.

Fish vision: introduce the trout’s ‘window’ - looking up, a trout sees out through a roughly 45-degree cone, so it can spot you on the bank. Stay low.

Where would YOU rest if you were a trout? Where’s the easiest food?

Fish biology: lateral line, vision cone, cold-blooded metabolism

Introduce the concept of water temperature and trout metabolism

Kick-Seine Sampling - 55 minutes (Minnows run this block first)
Groups of 3-4 students with kick-seine nets. Collect and identify macroinvertebrates.

Mayfly nymphs: 3 tails, gill plates - most important hatch food

Stonefly nymphs: 2 tails, flat body - indicator of clean water

Caddis larvae: building cases from local materials

Midge larvae: tiny, red/brown, crucial in cold months

Freshwater scuds: shrimp-like - “This is exactly what Joe tied at age 10”

Tell the orange shrimp story here: ten-year-old Joe, Thompson Run, mother’s sewing basket

AGE ADAPTATIONS: Age 6-10: Focus on finding cool bugs and learning their names. Ages 11-13: Sketch them in journal and guess the matching fly. Ages 14-17: Discuss emergence timing, water temperature triggers, and hatch-matching strategy.

Snack, water, and bathroom break - 15 minutes

Wading Rules and the Fall Position on Dry Land - 15 minutes
Before anyone stands in moving water this week: PFDs on Minnows and non-swimmers, wading belt on every camper in the water, the tier depth table (ankle, knee, mid-thigh, never above the belly button), the shuffle (one foot always on the bottom), and the fall position on the grass: feet downstream, on your back, nose and toes up. Three kid rules said out loud: hook in skin - freeze, don’t pull, call a Leader; shivering - out of the water and tell a Leader, nobody is in trouble for being cold; sunscreen and water bottle every 60 minutes, the Leader calls it.

Reading Water + Presentation - 25 minutes
Return to stream: instructor points to specific features

The seam is the money zone - where fast and slow water meet

Trout face into current, rest in slow water, dart to fast water to eat

Stealth approach: downstream, crouch, no bright clothing

Light angle: fish see into air at roughly 45 degrees

Afternoon Block (3 hours): Introduction to the Short Stroke
Arithmetic: history of casting 15 + casting on the lawn 70 + knot lab 30 + snack and water break 15 + First Fish on the Pond 40 + closing circle 10 = 180 minutes.

The History of Casting - 15 minutes (Minnows: two sentences and the thicket clip, then straight to the lawn)
Why traditional 10-to-2 was developed: tournament casting on open western rivers

Why it fails on tight eastern streams: trees, banks, brush

Joe’s solution: the shortened stroke, born from necessity on Pennsylvania streams

Show the scene from Live the Stream: the “Cast in a Thicket” sequence

“This piece of water we’re going to fish - it’s a thicket. The casting is very demanding in this tight brush. I don’t think this type of fishing has ever really been recorded. If we can capture this on film today, it will be a highlight.” - Joe Humphreys, Live the Stream

“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

Casting on the Lawn - 70 minutes

Grip: thumb on top of handle

The pick-up: smooth lift, accelerate to abrupt stop

Thumb squeeze at back stop

Forward stroke: a short drift and a tap with the hand and forearm to an abrupt stop at 11 o’clock - the rod stops right between your eyes. Thumb to elbow one piece; the wrist never breaks

Thumb squeeze on forward stop

Follow-through with rod tip low to water

Hula hoop target course: 5 hoops at 20, 25, 30, 35, 40 feet. Minnows: hoops at 15 and 20 feet only.

Add the roll cast: useful when backcast is blocked by trees or banks

Knot Tying Lab - 30 minutes

Davy Knot with paracord first, then actual tippet

Double Surgeon’s Knot for connecting tippet sections

Goal: every camper ties both knots from memory before Day 2. Time against your own stopwatch, never against each other.

Snack, water, and bathroom break - 15 minutes

First Fish on the Pond - 40 minutes

Day 1 ends with something alive pulling back on the line. Move the group to the stocked pool, farm pond, or panfish water you scouted before camp - bluegill, sunfish, and crappie make the first fish accessible and almost inevitable. This block is borrowed straight from our Warm Waters camp, where it is the whole point of Day 1: every child needs a moment where something alive pulls back. The technique is secondary. The experience is everything.

Simple bobber-and-nymph or small wet fly rigs, barbless hooks only. Crude technique is welcome here - a flopped cast that reaches water counts. Instructors rotate camper to camper. The standing rule: every camper gets a real chance at a fish today, and we work the spot until they do. Adjust spot, fly, and depth. PFDs on every Minnow and non-swimmer at the pond.

Handling protocol, taught with the very first fish and enforced on every fish after: wet hands before touching, cradle the fish, keep it in or over the water, 3-second lift at most, release facing into open water. Respect the fish is respect for the water - that lesson starts on fish number one.

When the fish takes: pause, then lift. Don’t snatch.

AGE NOTE: Minnows (6-10) may have an instructor make the cast and hand the rod over once the bobber is out - the take, the fight, and the landing are theirs, and that is what they will

remember. Ages 11 and up cast for themselves with the short stroke they learned an hour ago. Nobody's first fish gets graded.

NO-POND FALLBACK: If your site has no stocked pool or panfish water within reach, run the Seine Catch instead. Same time slot, same energy. Kick-seine teams return to the riffle from this morning, and every camper personally nets, identifies, and releases one live insect - that is their first catch of the week, announced by name at the closing circle ("Ella - one mayfly nymph, three tails"). Then say it plainly: your first fish comes Wednesday. Move the real first-fish moment to Day 3's on-water session at the bridge hole (the deep pool under a bridge), and work the spot until it happens there.

Day 1 Closing Circle - 10 minutes

LOOK UP MOMENT: Before heading in, stop at the stream. Point out one thing no one noticed all day.

"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

Journal prompt: "What surprised you most about the stream today?"

Conservation moment: one fact about clean water and trout habitat

Take-home tonight: give every camper a piece of paracord and a small carabiner, and have them clip it to their backpack before they leave the circle. The assignment starts now, not Friday: tie the Davy Knot onto the carabiner once a day. Quarter-inch tag end. One firm tug. By Friday it will be automatic.

Preview Day 2: "Tomorrow you become a fly tier. You will make the fly you fish with."

Day 2: Tuesday - "The Fly Tying Connection"

Theme: Understanding Fish Food from the Inside Out | Motto: "To Deceive the Fish, First Understand Its World"

Day 2, 9:00 to 4:00 (morning block 9:00-12:00, lunch 12:00-1:00, afternoon block 1:00-4:00). Arithmetic: morning 20 + 60 + 15 + 40 + 45 = 180; afternoon 60 + 15 + 35 + 50 + 10 + 10 = 180. Fly tying is capped at two 60-minute blocks; the rest of the day goes to lawn casting games and the pond.

Hook count-out and count-in at every tying block (Run Sheets Card 6). Eye protection stays on at the vise.

Morning Block (3 hours): Vise Fundamentals

Why We Tie - 20 minutes

Begin with the full orange shrimp story - this is Day 2's thematic anchor.

Joe's principle: understanding what fish eat makes you a better angler AND a better observer. But there is another dimension to fly tying that Joe discovered as a teenager: it gave him direction.

"Fishing was the catalyst that moved me from the depths of despair into a whole new life." - Joe Humphreys

For some of the students in this room, fly tying may do the same thing. It is a craft requiring patience, fine motor skill, material knowledge, and problem-solving. It connects students to biology, chemistry, art, and engineering. And at the end, there is something to fish with.

JOE ON BOOKS: “Now if the teacher would ask me to write a paper - I had direction. I would write about the brown trout. Or about how to fish the wet fly. That book gave me a new start on life. Hopefully my books - I hope maybe they give somebody direction.” - Joe Humphreys

Tying Block 1: The Vise and the Hare’s Ear Nymph - 60 minutes
Tying vise, bobbin, hackle pliers, scissors - the tyer’s toolkit (10 minutes)

Thread control: starting the thread, consistent pressure, half-hitch to secure

Materials today: dubbing (hare’s ear mix), pheasant tail fibers, wire rib, hackle

Body proportions: keep the body about as thick as the gap of the hook - slim and buggy, never bulky

Basic nymph sequence: thread base, tail, rib, body, thorax, head

Tying Pattern 1: Hare’s Ear Nymph, size 14 (50 minutes)

Brook Trout (11-13): full pattern with rib and tail

Brown Trout (14-17): full pattern with optional bead head and wire rib variation

Each student completes at least one fly to fish today

MINNOW ADAPTATION (6-10): Minnows do not sit at a vise for this block. They run two 30-minute rotations with a Harvey Leader each, counted against staff: a bug tray with the Day 1 specimens (“find the one that looks like a Hare’s Ear”), and a lawn casting game at hoops 15-20 feet. Their one fly comes this afternoon.

Snack and Water Break - 15 minutes
Shade, water bottles, bathroom. Head count before and after.

Lawn Casting Games - 40 minutes
Short stroke review, hoop course, roll cast lanes; Casting Scorecard target lanes for anyone chasing the Cast Tier (14+/20). Minnows: hoops at 15-20 feet only.

Pond or Stream: Fish the Fly You Tied - 45 minutes
Every tier fishes the Hare’s Ear they tied this morning at the pond or the softest water on the stream. Handling protocol from Day 1 on every fish: wet hands, cradle, in or over the water, 3-second lift at most, release facing open water. PFDs on every Minnow and non-swimmer at the water’s edge; belts on anyone in the water.

Afternoon Block (3 hours): Tying the Local Pattern + Wet Flies

Tying Block 2: Joe’s Orange Fly and the High-Visibility Foam Dry - 60 minutes
Joe’s Challenge, the Orange Fly (25 minutes): give each student orange thread or materials. Challenge: create YOUR version of Joe’s original orange shrimp, using what you observe from Day 1 specimens. Students can examine actual stream specimens collected on Day 1. No rules on pattern - orange must be present, must be fishable on a hook. Share and discuss: what design choices did you make and why?

Tying Pattern 2, the High-Visibility Foam Dry Fly (35 minutes): yellow or chartreuse foam cylinder body; white calf tail or Z-lon wing post; elk hair or deer hair wing. High-visibility so young anglers can track it on the water.

MINNOW ADAPTATION (6-10): Minnows tie one fly this week - the foam dry, instructor-aided, 45 minutes - then join the pond block early with their Harvey Leader. Brown Trout (14-17): fully independent on both patterns.

Snack and Water Break - 15 minutes
Shade, water bottles, bathroom. Head count before and after.

Lawn Casting Games - 35 minutes
Ugly Fly Contest judging on the lawn, then target lanes: short stroke and roll cast to hoops, Casting Scorecard rounds. Minnows: hoops at 15-20 feet only.

Pond Block: Fish the Foam Dry - 50 minutes
Every tier gets this pond block to fish the fly they tied. Watch the fly, pause, then set. Same handling protocol, same PFD and belt rules as this morning.

Introduction to Wet Fly Concepts - 10 minutes
What is a wet fly? Soft hackle, classic patterns, subsurface presentation

The swing: cast across current, mend, let fly swing through seam

How to detect strikes on a swung wet fly

Preview of Day 4's swing fishing session

Day 2 Closing Circle - 10 minutes
LOOK UP MOMENT: Take the group outside. Ask them to sketch one thing they see in their journals that is not a fish and not a fly.

Journal prompt: "Draw the fly you tied today and explain why a trout would eat it." Minnows: draw it, then tell a Leader one sentence.

Connection exercise: hold your finished fly up

Take-home tonight: each camper picks ONE fly they tied today to take home - the rest go in the camp fly box to be fished tomorrow. For Minnows, clip the hook point flat with side cutters before it leaves the table; the fly is for the hatband and the bragging, not the hook. Say it as you hand them over: you made this. Nobody bought it for you. - "A fish in this stream may eat this tomorrow."

Day 3: Wednesday - "Nymphing - Getting to the Bottom"

Theme: Sub-Surface Mastery | Motto: "The Fish Lives on the Bottom. Go There."

"We care about slack because we care about tension. Our flies, leaders, and fly lines are impacted by current from the instant they hit the water until we remove them for the next cast." - Joe Humphreys

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

Morning Block (3 hours): Rigging and Theory

Arithmetic: why nymphing matters 30 + building the leader 75 + snack and water break 15 + depth and flow analysis 60 = 180 minutes.

Minnow pacing (6-10): Minnows get pre-rigged rods. They do a 15-minute “where does the shot go” game (8-10 inches above the fly, Brown is medium, Yellow is light, Black is heavy), then run the indicator-watching rotation already written for this afternoon, with their own adult, instead of the 75-minute leader build.

Why Nymphing Matters - 30 minutes

80 percent of trout feeding happens sub-surface

Joe’s revolution: heavily weighted flies, getting to the bottom quickly

Story: Joe as a boy at Thompson Run, watching trout dip to the bottom to feed

Today’s challenge: get your fly within 6 inches of the stream bottom and keep it there

Building the Nymphing Leader - 75 minutes

Components: fly line, butt section, leader, tippet, fly

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

Adding weight: split shot placement, 8-10 inches above fly

Strike indicator: yarn, foam, stick-on - how to set and adjust depth

Fly selection: bead head sinks faster; tungsten bead fastest of all

Practice: each student builds a complete nymphing rig from scratch

Snack, water, and bathroom break - 15 minutes

Water Depth & Flow Analysis - 60 minutes

Walk the stream with depth gauge or stick measurement

Map depth variations along a 50-foot stretch of stream

Identify which sections need Yellow (light), Brown (medium), or Black (heavy) shot, or a heavier fly

The bottom test: if the indicator never ticks or pauses, the fly is riding too high - add weight until it occasionally taps bottom

Afternoon Block (3 hours): The Tuck Cast Family

Arithmetic: tuck master class 60 + on-water tuck 45 + rolling tuck 20 + snack and water break 15 + Downer-Upper 30 + closing circle 10 = 180 minutes. Minnow rotations fill the full 120 minutes of tuck work (4 x 30), with their own adults, then join the snack break and the Downer-Upper demonstration.

Tuck Cast Master Class - 60 minutes

Start on dry land:

Why the regular cast fails for nymphing: fly lands flat, drag sets immediately

Tuck cast mechanics: overpowered stroke, abrupt HIGH stop, nymph kicks under leader, enters water nearly vertically, sinks fast

Key moment: the rod tip stop must be HIGH (12 o'clock or higher) and ABRUPT - no follow-through. Then WAIT: feel the pull of the weights behind you and see the rod tip bounce. Stop hard, let the rod tip bounce, and let the fly tuck under on the bounce. The bounce says go, and not before.

Instructor drill: hold hand above rod at stop height so student learns the feeling

20 dry-land practice casts before moving to water

On-Water Tuck Cast - 45 minutes
Position students at bridge hole or high-probability pool

Goal: get the indicator to tip slightly every 3-4 drifts (confirms bottom contact)

Students call out when they see the indicator pause - instructor: "THAT'S A STRIKE - SET!"

Aggressive hook set practice: sharp upward lift of the hand and forearm

The Rolling Tuck - 20 minutes
For when a backcast is partially blocked but not fully

Roll cast combined with tuck stop

Heavier than a standard roll cast: a firmer squeeze at the stop, then wait for the bounce

Snack, water, and bathroom break - 15 minutes

The Downer-Upper Cast - 30 minutes
When the target is directly below you or slightly downstream

Sharp DOWNWARD rod stop, then an immediate fast upward lift of the casting hand and forearm - the stop fires the nymph straight down, the lift drives it to the bottom

Perfect for plunge pools, waterfalls, deep pocket water

AGE ADAPTATIONS - DAY 3 AFTERNOON:

Minnow (6-10): the tuck masterclass is too long for this tier, and the tuck itself can wait a few years. While the 11+ campers do tuck reps, Minnows run four rotations, 30 minutes each (4 x 30 = the full 120 minutes), one adult per station, never longer:

- Roll cast lanes: hoops at 15 feet, roll casts only, celebrate every hoop loudly.
- Indicator-watching games: an instructor drifts a rigged indicator through a seam and the Minnows call the strike - every pause, every tick, yell "SET!" Keep a rock-or-trout tally on the bank. This builds the one nymphing skill they can own right now: eyes on the indicator.
- Bug hunt: seine, sort, name. Kids this age are often more perceptive than adults - let the bugs be the star.

- Pond or pool rotation: fish the indicator rig in the softest water with an instructor at arm's reach, PFD on; if the water is pushy, yarn to targets.

Minnows watch the Downer-Upper demonstration with everyone else, then return to rotations.

Brook Trout (11-13): full tuck masterclass and on-water tuck session as written, plus the rolling tuck. The tuck is theirs this week - 20 dry-land reps before water, every rep with the abrupt high stop. They watch the Downer-Upper demonstration but do not execute it on the water yet.

Brown Trout (14-17): everything as written. The Downer-Upper is demonstrated for the whole camp but executed on the water by this tier only, and it is two parts, both required: the sharp downward stop fires the nymph into the water, and the immediate fast lift of the casting hand and forearm - thumb and forefinger pointing up - drives it to the bottom after entry. The Downer without the Upper is half a cast. Check for both, every rep.

Day 3 Closing Circle - 10 minutes
LOOK UP MOMENT: Ask students to listen for 30 seconds with eyes closed - what do they hear?

Journal: "Describe what the stream bottom looked like from the fly's perspective." Minnows: draw it, then tell a Leader one sentence.

Trivia: How deep does a weighted nymph need to be to be in the strike zone?

Day 4: Thursday - "Dry Flies, Tight Brush & The Night Game"

Theme: Advanced Techniques and Sensory Awareness | Motto: "The Best Anglers Fish With Their Ears As Much As Their Eyes"

"In a world few fly fishers see or experience, yet one that is most dynamic, is from twilight to dawn… The Night Game!! Its beauty is unsurpassed." - Joe Humphreys

Morning Block (3 hours): The Bow-and-Arrow Cast

Arithmetic: philosophy 20 + station work 105 + snack and water break 15 + dry fly introduction 40 = 180 minutes. The two-adult rule applies in the rhododendron tunnel: every station within sight of a second adult.

The Philosophy of Tight Quarters - 20 minutes
Joe Humphreys grew up fishing heavily wooded Pennsylvania streams tunneled over by rhododendron and hemlock. These streams hold the best wild trout - and are nearly inaccessible to conventional casters. The bow-and-arrow cast was born from necessity.

In Live the Stream, Joe demonstrates fishing a thicket - tight brush on a small stream, executing precise casts in spaces that seem impossible. "The casting is very demanding in this tight brush," he says. "I don't think this type of fishing has ever really been recorded." The key principle: the best anglers are the ones who can fish where others cannot.

Bow-and-Arrow Station Work - 105 minutes
Move to the most heavily vegetated section of the stream. RULE: Traditional overhead casting FORBIDDEN for the entire morning.

Station 1: Open but short - practice bow-and-arrow mechanics on a clear path

Station 2: Low branches - fire fly under a 3-foot high branch across the stream

Station 3: The Tunnel - rhododendron tunnel or simulated equivalent (bamboo poles + tarps)

Station 4: Accuracy Challenge - hit a 12-inch hula hoop at 15 feet through a 3-foot gap

SAFETY - MANDATORY: Grip the fly at the bend of the hook, point facing away from the palm - younger students grip the leader just above the fly instead. No exceptions at any station. Review before every station change.

Minnows (6-10): stations 1 and 2 only, 40 minutes, then the pond or a bug tray with their own adult; Ages 11+: all 4 stations

Snack, water, and bathroom break - 15 minutes

Dry Fly Fishing Introduction - 40 minutes
What makes a fly float: hackle fibers, elk hair, foam, CDC

The drag-free drift: presenting without unnatural pull

Mending: flip line upstream to extend drift

Presentation angle: upstream and slightly across, let fly drift down

Reading the rise form: sipping rings (selective), boils (aggressive), splashes

Afternoon/Evening: Dry Fly Fishing + Night Game Preparation
Arithmetic, afternoon block (1:00 to 4:00): dry fly practice 90 + green drake 15 + snack and water break 15 + night game preparation 30 + gear-down and transition to base camp 30 = 180 minutes. Then the Day 4 evening timeline: supper 4:00 to 4:30 (provided by the program, all campers); Open Bench 4:30 to 6:30 (supervised: fly tying bench, knot practice, lawn games, rest; two adults minimum, 1:5); 6:30 to 8:00 the dusk session (90) on the water for the Brown Trout tier at 1:3 and the Camp Evening Program (90) at base camp for everyone under 14 with two adults, both ending at 8:00 PM; pickup 8:00 PM for everyone, parent pickup required. The Day 4 closing circle below runs in the last 10 minutes, at the water for the dusk group and inside the evening program's journal time for everyone under 14.

Dry Fly Practice on Water - 90 minutes
Fish the high-visibility foam flies tied on Day 2

Cast to rising fish OR to likely holding lanes

Focus: watching the fly drift, detecting drag, setting the hook at the right moment

Key mistake: setting the hook on reflex before the fish has it - PAUSE, then set

Upstream wading practice: stealth, current reading, foot placement

The Green Drake Hatch Discussion - 15 minutes
If timing permits (late May-early June), there is a chance students will witness the green drake hatch - one of the most dramatic events in fly fishing.

Joe calls it "the Memorial Day Classic." The green drake is one of the largest mayflies in North America - nearly two inches long. It emerges once a year in a brief, unpredictable window. When it does, trout that have been invisible for weeks rise to the surface and feed aggressively.

But the green drake is also a conservation indicator. Like brook trout, it requires very clean water. “A lot of streams don’t have green drakes because they don’t have the water quality,” Joe says. A stream with a strong green drake hatch is a healthy stream.

“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

Snack, water, and bathroom break - 15 minutes

Night Game Preparation - 30 minutes
Background: Joe Humphreys holds Pennsylvania’s fly-caught brown trout record - a 16-pound, 34-inch brown taken at one in the morning. He spent three years stalking that single fish. He is still pursuing a 20-pound brown. He calls the night game “one of my favorite games.”

“Sculpins - I call them the strawberry shortcake of the trout world,” Joe says. Nocturnal, and one of the primary reasons large brown trout leave their daytime lies to feed after dark. A sculpin pattern swung slowly through a pool tail after dark is one of Joe’s most reliable methods for big fish.

Night hatch conditioning: when the green drake hatch arrives, many anglers assume fish will only want green drakes. Joe often fishes sulfur nymphs - if sulfurs have been hatching for several weeks prior, large fish may still be conditioned to them. Watch what has been hatching, not only what is hatching right now.

Why big trout come out at night: reduced predation risk, comfort in darkness, large food sources active at night. Night fishing requires mastery of pinpoint casting without sight, knowledge of the stream from memory, and the ability to feel a take rather than see it.

The Longline system: longer leader, large wet fly or stone fly pattern, swung through seams

Detection: feel for the “bump” or sudden tension - STRIP SET immediately

Sound as navigation: the riffle sounds different from the pool, the bank from the open water

SAFETY - REQUIRED: SAFETY: Joe is explicit - never fish at night on a stream you don’t know in daylight. “You can lose your life.” Night game concepts are introduced here as aspirational goals. Actual dusk/night fishing is optional and requires full safety protocol: buddy system, wading staff mandatory, phone with light available.

Twilight/Dusk Fishing - 6:30 to 8:00 PM, 90 minutes (optional, ages 14-17 only)
Open only to Brown Trout tier campers (ages 14-17) with written parent/guardian consent. Younger campers return to base for the evening program.

Staffing on the water: 1 instructor per 3 campers from dusk onward, never exceeded - maximum 9 campers per 3 instructors, separate from the evening-program staff. Wading staffs, headlamps for moving (not for fishing), clear safety glasses.

Dusk fishing rules:

- Fish in pairs, buddy system strictly enforced
- Swing large soft hackle wet flies through known holding seams
- Each student fishes for a set rotation time - no student fishes alone

- Journal discussion: “How does fishing at low light change how you relate to the stream?”

Supper and Open Bench - 4:00 to 6:30 PM, all campers
Supper 4:00 to 4:30, provided by the program, every camper together. Open Bench 4:30 to 6:30, supervised at 1:5 with two adults minimum: fly tying bench, knot practice, lawn games, and rest - campers choose, and nobody is made to stay busy. Dusk-session staff use this window to rig and walk the water.

Camp Evening Program - 6:30 to 8:00 PM, Minnow and Brook Trout Tiers
While the Brown Trout tier fishes the dusk session, everyone under 14 gets an evening built for them - not a consolation prize, a highlight. Run it at base camp, start to finish:

The evening program runs 90 minutes: 25 + 15 + 20 + 15 + 15.

- **Fly tying games (25 minutes):** speed-dubbing relay, and the Ugly Fly Contest - tie the ugliest fly that would still catch a bluegill, judged by the whole group. Materials out, vises on, laughter allowed.
- **The record fish, told fireside (15 minutes):** tell Joe’s state record story around the fire - the tremendous explosion in the long deep pool on Fishing Creek, three years of stalking that one fish night after night, George Harvey’s tip to try the riffle at the pool’s head, the take at one in the morning, no net, both arms under the fish and up onto the bank, sixteen pounds, thirty-four inches, the warden’s door at four in the morning. Pennsylvania’s record trout for eleven years, and still the fly-caught record. Tell it as a story, not a summary. End on the point: the quest is the point, not the fish.
- **S’mores (20 minutes):** yes, real ones. Fire rules briefed first.
- **Stream-Reading and Bug Tier sign-off, bug half (15 minutes):** sorting trays and bug cards out by lantern light. Any camper ready to identify their core bugs and match a fly gets a Harvey Leader’s initials on the ladder card tonight - the bug half of the Stream-Reading/Bug badge, signed.
- **Journal time and closing circle (15 minutes):** prompt: “What sounds do you hear tonight that weren’t there at noon?” - the same senses question the older campers are answering on the water.

Staffing: at least 2 adults at base camp, separate from the dusk-session staff on the water.

Parent pickup: 8:00 PM for everyone; the evening program ends when the dusk session comes off the water. Parent pickup is required - state the 8:00 PM pickup in the parent packet and at Day 3 pickup, and no camper leaves without a signed check-out.

Night Game Story - Full Version (share this tonight)
Read or paraphrase Joe’s state record story:

“I was fishing a big long deep pool and I hear a tremendous explosion - then stone quiet. I knew it had to be a heck of a fish. I stalked that fish for three years, going night after night. One night, at one in the morning, I chucked two flies across that stream, gave them a little tip to get them into motion, and all at once they stopped. It sounded like somebody rolled a washtub over. I put the hammer to that fish. I had no net. I couldn’t turn it. The warden measured it: sixteen pounds, thirty-four inches. For eleven years it was Pennsylvania’s record trout - and it is still the fly-caught record.” - Joe Humphreys

Joe had been after that fish for three years. He had first heard it in a pool on Fishing Creek - a sound like a deer jumping off a bank, then stone silence. He worked the pool season after season. It was George Harvey who suggested trying the riffle at the pool's head. The night Joe finally hooked the fish, his buddy had already asked twice if it was time to go home. Joe made one more pass.

The fish took under a hemlock bough. Joe had no net. He threw the rod down, got both arms under the fish, and threw it up on the bank. Then he drove to his friend the game warden's house and knocked on the door at four in the morning.

"You woke me up at four in the morning to show me some damn fish?" the warden said. Joe said yes. The fish measured one inch longer than the previous state record.

Day 4 Closing Circle - 10 minutes
LOOK UP MOMENT: Stay outside as it gets dark. Listen. What sounds do you hear that weren't there at noon? What changes?

Journal: "What did you discover about your other senses when you couldn't rely on sight?"

Preview Day 5: "Tomorrow you use everything. And you give back."

Day 5: Friday - "Synthesis, Conservation & the Mentorship Field Trip"

Theme: All Skills Applied + Legacy | Motto: "You Are Now a Steward of the Water"

Morning Block (3 hours): The Graduation Field Trip

Arithmetic: opening ceremony 20 + independent fishing 145 (with a 15-minute snack and water break at the midpoint) = 180 minutes.

Opening Ceremony - 20 minutes
Begin by reading 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 of fly fishing - but an appreciation of nature itself - that's what it's all about." - Joe Humphreys

Each student reviews their camp journal: what has changed in their understanding?

"This game - the way the good Lord made it - nobody will ever have all the answers. It is always humbling. You can do everything you know to do, but you also have to have some luck." - Joe Humphreys

Students write a "Letter to the Stream" - what they promise to do for the water

Pair students as mentors and mentees: oldest with youngest

Certificates ready for the afternoon commencement - do not hand out yet

Independent Fishing Session - 145 minutes (snack and water break - 15 minutes - at the midpoint)
Students fish independently at a premier local trout stream

Requirement: 5-minute stream observation before first cast

Requirement: select a fly from their box (ideally one they tied on Day 2)

Requirement: tie on with a Davy Knot

Requirement: choose the appropriate Humphreys cast for the water

Mentor student coaches their younger partner

Instructors observe but intervene minimally - this is the culminating performance. Minnows (6-10) run the block as three rotations with a Leader at arm's reach; every pair stays within sight of a second adult.

Afternoon Block (2 hours): Conservation Action + Commencement

Conservation Action - 60 minutes

Joe's model: Spring Creek Trout Unlimited began with Joe and five friends around a kitchen table. The work of conservation does not require an institution. It requires someone who loves a piece of water and refuses to stop. Today, students take their first conservation action.

"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

"We need to be stewards of the stream. You don't have to pick the fish up out of the water and wave it around. Keep it in the water. We have to work on water quality." - Joe Humphreys

Choose one of the following based on your site and available resources:

Stream Clean-Up: Remove trash, debris, and monofilament from the riparian zone. Monofilament kills birds and mammals - collect and properly dispose.

Riparian Planting: Plant native wildflowers, grasses, or tree seedlings along the bank. Riparian vegetation shades the water, stabilizes banks, and filters runoff.

Macroinvertebrate Survey: Formal kick-seine study of the stream bottom. Document species present, compare to data from Day 1. Are brook trout present? What do they indicate?

Water Quality Testing: pH, temperature, dissolved oxygen testing with test kits. Compare to ideal trout parameters from the Conservation Handout.

Tell the Spring Creek story here - the full version:

THE SPRING CREEK STORY: Joe and five friends sat around his kitchen table in the early 1970s. Spring Creek was dying - stormwater from the Duck Pond had contaminated the spring that fed it. Water temperatures hit the 90s. Wild trout disappeared. They formed Spring Creek Trout Unlimited. They punched through a concrete wall with jackhammers and diverted Thompson Spring around the contaminated basin. Spring Creek came back. Today it is one of the premier limestone streams in the eastern United States. "It starts right here," Joe says. "It starts at home."

The Brook Trout Connection - 15 minutes

If brook trout are present in the teaching stream, take a moment here to discuss what their presence means. If they are absent, discuss why.

"Brook trout serve as fabulous bio-indicators for our mountain streams. They're very sensitive to pollution. In many of the same streams where brook trout live, we get our drinking water. They are an early detector of poor water quality." - Joe Humphreys

Commencement Ceremony - 45 minutes

Review all 5 days: what was learned, what was observed, best moment

Share “best moment of camp” - each student contributes one

Present the Program Completion certificate (Badge and Patch Program, Certificate 1, format line “Week-Long Summer Camp”) and declare Stream School Anglers (Certificate 2)

Teach-back (15 minutes inside the ceremony): each camper teaches one skill forward to their younger partner or to a parent - the final Stream School Angler requirement

Youth Helpers (ages 14-17): tell the Brown Trout campers at the certificate table that a student who has earned the Cast Tier and Knot Tier badges can come back as a Youth Helper, with a signed parent consent and the program’s youth acknowledgment; 20 logged hours earns the Youth Helper patch. Email hello@joehumphreysyouth.org to apply.

TAKE IT HOME - AFTER CAMP

Every camper has carried a piece of paracord and a small carabiner since Monday. Check the backpacks - anyone missing theirs gets a fresh one now.

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. No rod needed; if you use one with weight on the rig, glasses on.

Observation:

5 minutes outside. Sit still. Record one sound, one insect, and wind direction in the camp journal.

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

FINAL LOOK UP MOMENT: Take the group to the water one last time. One full minute of silence. Then Joe’s words:

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

“These waters are filled with miles of endless memories - of my childhood, my family, my career, and my inspiration to pick up a fly rod. 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

Group photo (campers with declined media consent step out or are cropped; program accounts only)

Announce how students can stay connected: local Trout Unlimited chapter, Joe Humphreys’ Fly Fishing Stream School alumni events

Camp Appendix

Badge Moments - One Sign-Off Per Day

The camp carries the Stream School badge ladder (see the Badge and Patch Program). Harvey Leaders sign the ladder card streamside the moment the skill is shown, not at week's end from memory. Each day has a natural badge moment:

Day	Badge moment
Day 1	Bug half of the Stream-Reading and Bug Tier - kick-seine sampling: identify your core bugs from the trays and match a fly to one.
Day 2	Knot Tier progress - Knot Mastery Card initials for the Davy and Double Surgeon's tied 3x unassisted; older tiers start their remaining knots.
Day 3	Cast Tier - 14+/20 on the Casting Scorecard target lanes; Rig Tier - build the complete nymphing rig from scratch, indicator at 1.5x depth, shot 8-10 inches above the fly.
Day 4	Stream-reading half of the Stream-Reading and Bug Tier - three seams found and the feeding side called correctly on the dry fly water.
Day 5	Steward Tier - keep-fish-wet plus Clean/Drain/Dry demonstrated at the conservation action. Stream School Angler declared at commencement for every camper with all five signed at their tier's standard.

The Knot Tier is tiered so every age can finish its ladder this week: Minnow signs at the Davy plus the Double Surgeon's; Brook Trout signs at four knots (add the Improved Clinch and Perfection Loop); Brown Trout signs at all five (add the Blood Knot). A camper who leaves Friday one badge short is told exactly which one, and may show it at any Stream School event - the ladder does not expire.

Fly Pattern Reference Card

Essential 12 Patterns for Youth Camp Fly Box:

Pattern	Notes
Hare's Ear Nymph #12-16	General-purpose nymph - works in all water types
Pheasant Tail Nymph #14-18	Slim silhouette, high success rate
Copper John #12-16	Flash attracts fish; weighted variant
Beadhead Prince Nymph #12-14	Visibility; tungsten bead sinks fast
Pat's Rubber Legs #6-10	High water; stonefly imitation

Pattern	Notes
Elk Hair Caddis #14-16	Dry fly - visible, durable
Parachute Adams #14-16	All-purpose dry; works any hatch
Stimulator #10-14	Large dry; great visibility for beginners
Sulphur Dry #16-18	Regional match-the-hatch
Griffith's Gnat #18-22	Midge imitation - small but critical
Woolly Bugger #6-10	Streamer - large trout attractor
Foam Dry Fly (homemade) #12-14	DIY construction; high visibility

Safety Protocols

Buddy System: No student fishes alone. 1 instructor per 5 students (1:5), never exceeded; 1:3 at dusk. Minimum two cleared adults at every activity, whatever the headcount. See the staffing table at the top of this document.

PFDs (life jackets): required for all Minnow-tier campers (ages 6-10) and any non-swimmer whenever they are in or beside water, including the Day 1 pond; Brook and Brown tiers wear one when the Lead Instructor calls it. We provide them.

Wading depth by tier: Minnow ankle deep, Brook Trout knee deep, Brown Trout mid-thigh, never above the belly button, never alone, always with a wading partner and a Harvey Leader in sight. Fall position taught on dry land Day 1: feet downstream, on your back, nose and toes up.

Eye protection: every student, every session - no glasses, no rod in hand. Prescription glasses are acceptable; the program provides safety glasses for everyone else.

Wading Belt: Mandatory on every student in the water, any depth.

Weather: Get off the water at the first clap of thunder and stay off for 30 minutes after the last one (the 30/30 rule). Check the water temperature daily - do not fish if it is above 68°F, because trout get dangerously stressed in warm water.

Sun & Hydration: High-SPF sunscreen; water breaks every 60 minutes and the scheduled snack break in every block. Kid rules: hook in skin - freeze, don't pull, call a Leader; shivering - out of the water and tell a Leader, nobody is in trouble for being cold.

Snagged Flies: 10-second countdown, controlled breakoff - never pull aggressively.

Night Fishing: Only on known water. Wading staff mandatory. Buddy system strictly enforced. 1:3, Brown Trout tier only, written dusk consent.

First Aid: On-site kit; lead instructor CPR/wilderness first aid certified.

Emergency Plan: before the first session, know the nearest hospital, check cell coverage on-site, set a lost-child procedure and a group meeting point.

Staff Ratios & Training

1 instructor per 5 students (1:5 maximum), 1:3 at dusk; cap 20 campers; minimum 4 certified Harvey Leaders plus 1 Lead Instructor (see the staffing table at the top of this document)

Lead Instructor: per the Harvey Leader Certification Standard (FFI Certified Casting Instructor or five documented seasons), required on site every camp day

Harvey Leaders certified per the Harvey Leader Certification Standard count in ratio; Youth Helpers (14-17) never do

Required pre-camp: watch Live the Stream in full, complete curriculum walkthrough

Parent/Guardian Information

Camp day: drop-off 8:45 AM, camp 9:00 AM to 4:00 PM (lunch 12:00 to 1:00), pickup 4:00 PM. Thursday (Day 4) runs late for every tier: supper 4:00 to 4:30 (provided by the program), supervised Open Bench 4:30 to 6:30 (fly tying, knots, lawn games, rest), then 6:30 to 8:00 the Camp Evening Program for campers under 14 and the dusk session for the Brown Trout tier; pickup 8:00 PM for everyone, parent pickup required. Brown Trout campers join the dusk session only with the separate written consent.

We provide all fishing gear, boots, belts, glasses, and PFDs. Bring: clothes for the weather, shoes that can get wet, a packed lunch, snacks, water bottle, sun protection, rain gear.

What this camp covers: Fly casting, fly tying, stream ecology, water reading, nymphing, dry fly fishing, bow-and-arrow/tuck/Downer-Upper casts, knot tying, aquatic entomology, conservation ethics

Safety: All fishing under 1:5 instructor supervision (1:3 at dusk), always two adults. PFDs required for all Minnow-tier campers (ages 6-10) and any non-swimmer whenever they are in or beside water, including the Day 1 pond; we provide them. Wading depth by tier: Minnow ankle deep, Brook Trout knee deep, Brown Trout mid-thigh, never above the belly button. Wading belts on every camper in the water. Weather monitoring (30/30 lightning rule, no fishing above 68 degrees). First aid on-site. Parents are welcome to stay and watch from the bank.

How to support at home: Ask what they observed on the water. Practice knot tying at home. Take them to a local stream. Connect them to Trout Unlimited.

Certificates

Camp uses the two certificates in the Badge and Patch Program: Certificate 1, Program Completion (format line “Week-Long Summer Camp”), for every camper; Certificate 2, Stream School Angler, for every camper with all five badges signed at their tier’s standard.