

ower drills and circular saws make a steady racket at the back of the tech lab in Juneau, Alaska's Floyd Dryden Middle School. A handful of sixth, seventh, and eighth graders, members of the public school's Camp W.A.T.E.R. (Wilderness, Adventure, Traditions, Exploration, and Research) and Tides program, work steadily through the spring afternoon around the skeleton of a small canoe, under the expert guidance of marine biologist-turned-boat-builder Fritz Funk. Launch Day is looming.

For Funk's young boatbuilders, many from local Tlingit families and struggling with different aspects of school life, building a boat offers a chance to learn about math, science, and working together. "It's pretty awesome," says Monica Eldemar, 13. "You need to learn a lot of math to cut the wood right. It's good to be in a group so you can get it done quicker."

Funk, 52, who retired three years ago from the Alaska Department of Fish and Game, first began designing boats nearly a decade ago. He grew up near the shores of Wisconsin's Upper Mississippi and remembered the days he spent fishing and exploring on the water with his father. So that his son, then 6, could build a boat with him, he created a design that allowed the wood strips to be nailed on the floor, rather than sideways on a frame. He dubbed the design, which was suitable for one or two paddlers, "The Wacky Lassie."

Soon he found himself volunteering to teach basic boat construction in local schools, and more versions of "The Wacky Lassie" hit the water. This winter, Camp W.A.T.E.R. and Tides, which develops alternative learning approaches for Native Alaskan children, tapped him for its after-school program. Funk and his students have met once

a week since February, going from building models to measuring, cutting, and assembling an actual boat. "There's something about the psychology of building a boat," Funk says. "You can see it in the kids' faces on Launch Day. They're anxious about whether the boat will float, and then it goes in the water and there's this burst of self-confidence."

For Funk's students, building has its own rewards. "I never knew how much went into building a boat," says Taylor Smith, 14. "You have nails, gorilla glue, wire ties, plywood—it's exciting. My dad is a construction worker, so I knew how to use power tools before, but I just sawed pieces of wood; I never made anything."

Once the canoe is completed, it will be painted white as a background color and then decorated with traditional Tlingit designs. Funk notes that the Tlingit are a "canoe nation," and he hopes to have an elder visit the group to discuss suitable imagery. After the canoe launches and each of the builders has a chance to paddle it, it will be displayed in the school's lobby.

In the future, Funk hopes to build a bigger canoe with Camp W.A.T.E.R. and Tides. He wants to incorporate more traditional Tlingit approaches and explore myths and cultural aspects of canoes as well. Meantime his students have gleaned some important lessons already. "I'd like to do it again so I really get the hang of it," says Monica Eldemar. "Then I can teach other people how to do it."

Hanna Rubin, a New York editor, has worked with a group of middle school kids producing a magazine.