Seaworthy vessels are the handiwork of noteworthy young builders.

At the Kalmar Nyckel shipyard on the Christina River in Wilmington, Delaware, sits a small fleet of gleaming canoes—freshly painted, waterproofed, and ready for launching.

Each has been meticulously built to specifications—and labored over with great care for months by a handful of students from the Alternative Center for Education (ACE) in nearby New Castle.

As part of the school's vocational curriculum, known as ACE Student Advancement Program (ASAP), middle school and high school students spend part of a semester at the shipyard, home of Delaware's tall ship, the Kalmar Nyckel.

Under the watchful eye of a master boat builder/carpenter, these apprentice canoe builders are guided through each phase of the construction process as they apply newly acquired carpentry skills such as lofting, planking, fastening, and finishing. Completed canoes are tested on the waters of the Christina and either sold or donated to a charitable organization.

"In addition to gaining vocational skills in a statestandardized curriculum, students are learning a great deal about concepts such as teamwork, cooperation, and punctuality," says L. Clayton Washington, a vocational counselor at ACE. "It's an extension of the Manners First theme we impart in vocational classes, which encourages students to show respect for others and to have a positive attitude toward learning."





Students also receive valuable instruction in water safety and boating, gain exposure to the waterfront heritage of Wilmington, and have the opportunity to conduct water quality experiments that add to their knowledge of marine ecology.



"All students are at risk if we as educators don't create opportunities and challenges to help them overcome issues they face daily," says Washington. "Many of our students deal with difficult economic, academic, and emotional challenges in life, yet they are quite proud of something they've built with their own hands."

So much so, that ACE faculty members are noticing improvements in students' attitudes toward learning as well as declining behavioral issues.

"I learned a lot from this entire experience and I'm happy that I completed the program," says student Jose Ortiz. "My mother cried when she saw the certificate I received at the graduation ceremonies."

The canoe-building project was funded by a grant from the Delaware Excellence in Education Grants Program.

Above, apprentice canoe builders
Jeremy Reihms (left) and Chris Clement
size up wooden planks before the
cutting, fastening, and finishing stages.
At left, Lynnae Scruggs applies a fresh
layer of finish to one of the wooden
canoes built by her and ACE classmates
during the semester.