

Incorporating woodworking as a teaching tool for all grade levels.

By David Radtke

MAKING SUBJECT MATTER relevant to students is a challenge teachers face on a daily basis. One school with a unique approach to meeting this challenge is Clear Spring School, located in Eureka Springs, Arkansas. I first learned about this independent school and its unusual curriculum while talking with Doug Stowe, founder of the school's woodworking program, "Wisdom of the Hands."

Clear Spring School is dedicated to the idea that hands-on learning helps students learn how to think. Its small enrollment, about 80 students at all grade levels, from pre-school to high school, may make Clear Spring School seem irrelevant. But its mission, "to promote a lifelong love of learning through a hands-on and hearts-engaged educational environment" is noteworthy.

"My involvement with the school first started back in 1976, when students from Clear Spring School



Clear Spring School is dedicated to the idea that hands-on learning helps students learn how to think. These social studies students built covered wagons to better understand the challenges America's 19th-century pioneers faced as they headed west.

would come to my pottery studio for art classes," says Doug, reflecting about how the woodworking program started. "Then, over the years, as my focus turned from pottery to woodworking, I built bookshelves for the school's first library and got further involved when my daughter became a student. In 2001, we began the Wisdom of the Hands in

response to the drastic decline in woodworking programs all across America. Almost immediately, we saw the potential of the woodshop to create hands-on learning opportunities in all subject areas."

The Wisdom of the Hands program at Clear Spring School has the following objectives:

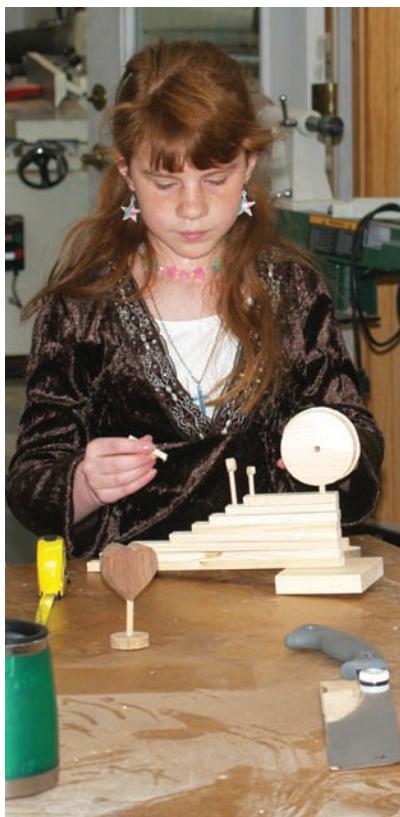
- To make woodshop participation relevant to the lives of all students and meaningful in their education.
- To use the woodshop to reinforce and support each student's interests in other areas of study.
- To serve as a model to demonstrate the relevance of woodworking in modern education.

Progressive educators have long recognized the relationship between the hands and learning; so the philosophy of incorporating hands-on learning as an integral part of the educational process is not new. The Wisdom of the Hands program at Clear Spring School has been heavily influenced by Educational Sloyd, a movement that originated in Finland and Sweden during the latter part of the 19th century. The Sloyd system

When students discover that woodworking is fun, it becomes an effective tool for teaching other subjects. All students learn to use woodworking tools properly and safely. The skills and tools they master become more complex at each grade level.



EDITOR: TIM JOHNSON - PHOTOS: COURTESY OF DOUG STOWE



Third and fourth grade scientists study the solar system.

espoused teaching woodworking skills gradually throughout a child's education, with the skills becoming increasingly complex in accordance with the child's intellectual development. This method was said to educate the child's character, encourage moral behavior, greater intelligence and industriousness.

Teachers at Clear Spring School have designed a curriculum that recognizes the benefits of Educational Sloyd's hands-on learning. The Wisdom of the Hands program has the flexibility to be tailored to benefit individual students according to their interests, as well as adapting to the changing world in which they live. While the Clear Spring curriculum would be difficult to reproduce elsewhere, Doug believes it can be used as a model for reintroducing woodworking and other industrial arts classes to schools across the country.

Wisdom of the Hands

At Clear Spring School, students start having fun with wood as pre-schoolers, where they create sculptures by assembling and gluing wood pieces. The goal is to make woodworking an activity that students enjoy and look forward to as their skills grow and their education progresses. The school's excellent student-to-teacher ratio—about eight to one—ensures that every student develops safe and sound woodworking skills.

Starting with elementary grade classes, woodworking is woven into other subjects. For example, the third and fourth grade class (grade levels are combined at Clear Spring) recently studied America's westward expansion during the last half of the 19th century.

To personalize the pioneer experience and understand the technologies of the time, the students researched and then built wooden models of covered wagons. Encouraged to think about what it must have been like to leave home and head west to start a new life, the students outfitted the wagons with scale-sized boxes and containers representing the provisions they would need. Seeing their provisions dwindle while talking about the trip west gave the students a better understanding of the times and challenges these early settlers faced. After following the settlers to their California destination, the students made quill pens from wood and used them to write letters to relatives "back home," explaining their adventures on the journey.

Another middle school class uses woodworking to reinforce the study of solid geometry. Students make wooden geometric forms (spheres, cones, cubes etc.), which they then can use as study aides. This hands-on activity helps students understand concepts behind mathematical formulas such as those for volume and surface area.



First and second graders learn about natural history.

The high school trigonometry class recently built wooden trebuchets and other object launchers to study trajectory paths and the forces acting on the object and launchers. For those high school students with extra interest in woodworking, a woodworking club provides extra time in the woodshop.



Music students make their own instruments and perform at community folk festivals.

Woodworking and Community Service

Clear Spring School students are actively involved in community service and as a result, the school enjoys avid community support.

Students have built toys for needy children and presented seminars to educate community members about woodturning and other aspects of woodworking. Students have also developed and sold woodworking projects to help fund field trips and camping trips that are part of Clear Spring School's educational curriculum.

Hope for Change in Woodworking Education

It's no secret that woodshop and other industrial arts education classes have been disappearing from public schools, labeled outdated or irrelevant. But as Clear Spring School attests, hands-on learning can be an important educational tool.



Ninth and tenth grade earth science students build mineral-collection boxes.



Trigonometry students study trajectory paths and launcher design.

A growing number of educators and scholars agree that industrial arts programs benefit students' intellectual, social and career development. For example, in the article "Industrial Arts: Call It What You Want, the Need Still Exists," which recently appeared in the *Phi Delta Kappan* (www.pdkintl.org/kappan/k_v89/k0803how.htm), author James Howlett argues that teaching technological literacy at the expense of hands-on skills training is wrong for students. Howlett further states that "from middle school to high school, students need not only the opportunity to explore a variety of trade skills but also the opportunity to learn the skill as well."

In Doug Stowe's view, by focusing on theoretical learning at the expense of hands-on experience, traditional public schools are producing graduates that are intimidated by tools and have a lack of appreciation for handmade objects and the artisans who produce them. Through Clear Spring School and Wisdom of the Hands, Doug hopes to reverse this trend one student at a time.

For more information about woodworking at Clear Spring School, visit <http://wisdomofhands.blogspot.com>.

To learn more about Educational Sloyd, visit www.americanwoodworker.com/sloyd to read "Beginning Sloyd: Woodworking in an Elementary School" and other related articles written by Doug Stowe.

Doug Stowe has been a woodworker since 1976. He is a frequent contributor to woodworking magazines and the author of five books. He started Wisdom of the Hands in 2001 to



answer the question, "Are woodshops still relevant to education in the computer age?" The answer, "Even more so!"

Tell us about a dynamic woodworking school or vibrant teaching program.

What makes it work? Point out notable teaching strategies and student accomplishments. Explain how the program excites students about woodworking and tell us how it helps them develop woodworking skills. Whether the program operates in a public school, community center or a private workshop, we want to hear about its success. E-mail your story to schoolnews@americanwoodworker.com.