



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2022.** Please include this submission form with the electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

PROGRAM INFORMATION

County: County of Henrico
Program Title: Picnic Tables for Outdoor Learning
Program Category: Health and Human Services

CONTACT INFORMATION

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SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

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Program Overview

In the fall of 2021, Henrico County Public Schools sought to provide additional outdoor learning spaces for elementary students. With COVID-19 mitigation efforts requiring students to wear a mask while inside the school, providing outdoor spaces allowed for an alternative to being inside a regular classroom all day.

With assistance from the Henrico County Public Schools Department of Facilities, students and teachers from the Advanced Career Education — or ACE — centers' carpentry programs set up a manufacturing system to produce more than 110 picnic tables. These tables were distributed across the division's 46 elementary schools and help provide outdoor learning spaces for students and teachers to use.

Problem/Challenge/Situation Faced by Locality

With the return to full five-day-a-week in-person learning, wearing a mask or face covering throughout the day was adopted as a COVID-19 mitigation strategy for all students and staff throughout the day. The elementary schools throughout the county wanted to provide younger students additional time outdoors in the fresh air while continuing to learn. After careful consideration, it was determined that tables and seating would be needed to expand outdoor learning spaces for students and staff to use.

How Program Fulfilled Awards Criteria

There is great worth to be found in the picnic tables that were constructed and provided to each of the elementary schools. The tables represent collaboration between elementary schools, the programs for advanced career and technical education (ACE) and the facilities department. This project was a valuable learning experience for the HCPS carpentry students to develop their skills and to be involved in a quick response to an emerging need. Students were able to develop new

skills and reinforce those previously taught, and to develop a deeper connection with team-building and a stronger sense of community. They learned the importance of their work in creating the finished product they were able to provide.

How Program Was Carried Out

With the return to five-day-a-week in-person learning, school staff and division leadership thought it was important to provide additional access to outdoor learning spaces. Given the less-than-ideal circumstances of wearing a face covering or mask while indoors all day, an outdoor learning space would allow for a change in scenery to help foster learning. The goal of this project was to construct picnic tables that could be provided to the division's 46 elementary schools. Teachers would have the opportunity to take their classes outside and use the tables as an outdoor learning classroom.

The idea was conceived in September 2021. Once the raw lumber was secured from Ruffin & Payne, Inc., the Department of Facilities was able to assist by cutting the materials down to a manageable size for the students to work with in order to increase the speed of the entire process. Starting the first week of October, the carpentry classes at the ACE centers at both Highland Springs High School and The Academy at Virginia Randolph could begin manufacturing. Students involved in both the Year 1 and Year 2 Carpentry programs were involved throughout the manufacturing process. Several work stations were established, and HCPS Facilities employees cut the lumber to specific lengths to expedite the process. Students rotated through the stations to become familiar with all aspects of the build process. As an authentic learning experience in manufacturing, students would work in various areas to build the bench, leg or table component of the picnic table. This would also include a sanding area and final assembly and quality-control inspection.

As students gained confidence in the skills they were developing, they were able to get production up to about 10 finished picnic tables per day. The manufacturing process concluded in late November 2021, with carpentry students completing more than 110 picnic tables to be delivered to elementary schools.

The Department of Facilities was able to assist with loading the finished picnic tables and getting them delivered to the elementary schools.

Financing and Staffing

Carpentry teachers involved with the Advanced Career Education centers at both Highland Springs High School and The Academy at Virginia Randolph were able to develop a prototype for the picnic tables. This included creating jigs to help streamline the process, made with scrap material already in the schools. Funding for the lumber and hardware to build the tables was provided through the federal Elementary and Secondary School Emergency Relief Act, or ESSER II, funding the division had secured.

Based on the materials purchased, tables were valued at roughly \$185 each, with more than 110 tables produced for a total cost around \$20,350.

Program Results

The manufacturing process concluded in late November 2021, with carpentry students completing more than 110 picnic tables to be delivered to elementary schools. The picnic tables were delivered to schools as the weather became too cold to be outside regularly. The success of seeing these outdoor learning spaces in action will come as things warm up in the spring. However, the project's learning experiences for HCPS carpentry students can be seen already.

The general tools and processes needed to build these picnic tables are continuously taught through the carpentry programs, but the specific application fostered deeper learning. Students were able to hone their skills throughout the manufacturing process. The focus at the beginning was on the quality of the finished table, not how long it took to make. However, through the reinforcement of measurement, the use of tools such as drills, sanders and levels and the development of teamwork, it didn't take long for the speed to match the level of quality. It was evident students saw value not only as a class project but also the effect it would have on school communities throughout the division. Students were genuinely interested in the manufacturing process as they knew what they did would have a tangible benefit to others.

Brief Summary

As students returned to in-person learning in the Fall of 2021, elementary schools were in need of outdoor learning spaces for daily use. Purchasing outdoor seating at market prices was not possible for some schools and availability of outdoor classroom furniture was also an issue due to demand and shortages.

Collaborating with the department of facilities and the schools, students in HCPS' Advanced Career Education carpentry program built 110 picnic tables in less than two months and delivered the tables to the schools. In the process, students applied and improved existing skills and developed new ones. They gained experience in a total manufacturing process from design to delivery and experienced a reduction in production time as their skills increased. Most of all, they knew they were meeting a need for our younger students and providing something of use and lasting value to our elementary schools.

The schools that received the tables are making excellent use of them, creating new and ongoing opportunities for outdoor classroom experiences. This was a valuable and worthwhile project for all involved. Our CTE centers look forward to future projects with our schools to meet emerging needs and provide authentic work experiences for center students.