



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2023.** 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: Students Combat the Pandemic by Building Outdoor Learning Spaces
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

Henrico County Public Schools (HCPS) sought to provide elementary students with outdoor learning spaces. With COVID-19 mitigation efforts requiring students to wear masks inside the school, giving alternate spaces where appropriate was essential to in-person learning. With assistance from the HCPS Department of Facilities, students and teachers from the Advanced Career Education 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 to help provide outdoor learning spaces for students and teachers.

Problem/Challenge/Situation Faced by Locality

With the return to full five days a week of in-person learning, wearing a mask or face covering throughout the day was an adopted COVID-19 mitigation strategy for all students and staff throughout the day. The elementary schools throughout the county did not provide opportunities for outdoor learning, which would provide an ideal opportunity for those younger students having to wear a mask regularly while inside the building to get fresh air. In looking at this carefully, there was a desire to expand these outdoor learning spaces for students and staff to utilize.

How Program Fulfilled Awards Criteria

There is great value to be found in the picnic tables constructed and provided to each elementary school. However, the worthiness of the award is how this went from being a simple desire for the students to an authentic learning and manufacturing experience for the students in the ACE Centers. Similarly priced picnic tables could have been produced, but the learning experiences for the carpentry students would've been not available. These students were not only able to develop new skills and reinforce those skills previously taught but also to develop a deeper connection with team building, and a stronger sense of community and its importance with the finished product they were able to provide.

How Program Was Carried Out

With the return to in-person learning, division leadership felt it was important to provide outdoor learning spaces. Given the less-than-ideal circumstances of wearing a face covering or mask indoors all day, an outdoor learning space would allow for a change in environment to help foster learning. The goal of this project was to construct picnic tables that could be provided across 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, the HCPS Department of Facilities was able to assist by cutting the materials down to a manageable size for the students to work with and increasing the speed of the entire process. Starting the first week of October, the carpentry classes at the Advanced Career Education Centers at both Highland Springs and Virginia Randolph were able to begin manufacturing. Students involved in the Year 1 and Year 2 carpentry programs were involved throughout the manufacturing process. Several stations were established, and students would rotate throughout the stations to be 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, along with final assembly and quality inspection.

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

The HCPS Department of Facilities assisted 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 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 Elementary and Secondary School Emergency Relief (ESSER II) funding the division had available.

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

Program Results

However, the learning experience this project provided is where the successes can be seen. The picnic tables were delivered after the completion in November 2021. Beginning the following spring, it was observed that teachers were using the tables across the division to provide extended

learning spaces for their students. Tables were not used just for eating a snack or meal but as outdoor gathering places for students to come together for fresh air and learn in an alternate setting. They served as mini-field trips, when field trips were still largely limited due to COVID concerns.

The general tools and process needed to build these picnic tables are regularly taught through carpentry programs, but the specific application fosters 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 rather than how long it took to make. However, through the reinforcement of measurement, the use of tooling such as drills, sanders and levels, and the development of teamwork, it didn't take long before the speed increased to match the level of quality they sought. It was evident that students saw value not only as a class project but also in the impact it would have on school communities throughout the division. Students were genuinely interested in the manufacturing process as they knew what they did had a tangible benefit to others.

Brief Summary

In response to COVID-19 mitigation efforts, HCPS utilized carpentry programs within its Advanced Career Education Centers to create 110 picnic tables to be used for outdoor learning spaces. These spaces were designed to offer a safer, productive alternative to elementary school students having to be masked during indoor activities and classes throughout a full school day, while still giving them the experience of in-person learning. The process of creating the picnic tables gave the ACE Center carpentry students the ability to apply the skills they had been curating to a practical project that directly benefited the rest of Henrico's schools. These students steadily improved within the planning and production processes of the benches, and the final result was 110 professional-quality benches that enhanced the education of both the builders and the elementary school students that went on to use the benches.

Students Combat the Pandemic by Building Outdoor Learning Spaces Supplemental Material

