

Handcrafting guitars music to Laurel School students' ears

By RYAN DENTSCHIEFF

RUSSELL — Moments after applying the first coat of rosewood-colored stain to the sanded body of her unfinished guitar, True Pyle, 13, of Bainbridge began soldering together the instrument's electrical components.

Across the room in the Laurel School Butler Campus, True's seventh-grade classmates, 13-year-olds Sidney Bourne of Shaker Heights and Alex Ludgate of Solon, were putting the final sanding touches on the head stocks of their guitars.

In late May, more than a dozen guitar-shaped pieces of wood hung from wire hooks in the school as most of the students' instruments featured paintless, sanded guitar bodies and necks lacking fret boards or strings.

That will change soon when some of the guitars will be fully functional and on display at the LaureLive music festival at the Russell campus June 9-10.

The guitar-making project is part of the school's STEAM guitars class, which stands for science, technology, engineering, art and mathematics. The elective course is offered to sixth, seventh- and eighth-graders where the students at the private, all-girls school based in Shaker Heights build the entire instrument, from sanding it into shape, to painting and lacquering, to assembling and installing the electronics and fixing it with frets and strings.

The class was established about four years ago with the assistance of a National Science Foundation grant and has evolved over the past two years under the instruction of Seth Orbach to include upgraded guitar models, innovative building techniques and the involvement of more students.

The project begins the first week of school when students receive a kit made by a company called STEM Guitar.

"It's definitely been a lot of work since the beginning," True said. "They came as these



Photos by Michael Johnson

Sidney Bourne, a seventh-grader at Laurel School, sands the final touches on the neck of her handmade electric guitar during the STEAM guitars class.

gross, rough, unsanded guitars. And we had to sand them for a good month before we could actually start doing anything else. So in the very beginning it was definitely a challenge, but after that it got easier. It's a more independent project and has really been a fun experience."

The first step was for the girls to decide on a general design for their instrument. They then sawed the headstock and neck into shape and began the arduous process of sanding.

The design and woodworking aspect of the build has been Alex's favorite part of the project.

"My grandpa does a lot of woodwork stuff, so I just wanted to do something like that," she



Middle schoolers at Laurel are taking the guitar-making elective course where students sand, paint and lacquer the instrument and fit it with electronics, frets and strings. Class instructor Seth Orbach said the incorporation of science, technology, engineering, art and mathematics into the course has something to fit every student's interests.

said. "It looked like a lot of fun and really cool."

Before the school year, each student submits a list of electives they would like to take and ranks them in order of their most desired. Alex said the guitar-making class was first on her list.

"I wanted to learn how to play the guitar, but I also did it because it looked really cool. When I saw them on display last year, I knew I wanted to sign up and do it this year."

After next year, her wish to learn and ability to play the instrument should be more refined, as the school requires every sixth-, seventh- and eighth-grader to take a guitar class as part of the music education curriculum.

For Sidney, completing the soldering was what she enjoyed most. She expects to have more fun painting her guitar because "I like to get my hands dirty."

"I thought it would be so cool to make a guitar," Sidney said about what attracted her to the class. "I thought about, 'wow, I can make this guitar, I'm amazing. I can do all of this stuff.' I was also really interested in the electronic part of it, the soldering and everything for the amps and all of that. I've

just loved it all and it's been really fun. It's been a lot of hard work, but it's really starting to pay off in the end."

True said she wanted to join the class because she began playing guitar when she was 8 and wanted the opportunity to play an instrument she hand crafted.

"Last year they had the guitars they made on display, and I've been playing guitar for about five years now and have always had a fascination for electric guitars, so I wanted to build one.

"I'm definitely happy with the way my guitar has turned out so far and I'm definitely excited to see how it comes out when it's finished. And I'm really excited and ecstatic to play it.

"A majority of guitar players can't say that they built their own guitar," True added.

There are about 15 students enrolled in the guitar-making class and Mr. Orbach said the beauty of it is, there is something for every student's interest.

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guitar-making class and Mr. Orbach said the beauty of it is, there is something for every student's interest.

"There's material science, engineering in terms of the acoustics and structure. There's math in the fret location and string lengths, and there's art because they're designing it. It encompasses everything," he said.

He said the goal is for the students to find what they enjoy most. "Every kid has a different set of interests.

"But mostly what I want them to gain is the confidence that they can handle tools, handle materials, figure out and solve complex problems by themselves. And that they can learn new things," Mr. Orbach concluded.

Next year, he said he is planning to expand the course, offering it also to students at the Upper School. Ultimately, he said in a few years he would like to turn the instruction of the class to a new teacher.

"I think in a girl's school, women should lead. So eventually I'd like to find a female teacher who could lead the class, allowing me to support her rather than the other way around."

Attendees of LaureLive will be able to view



Photo by Michael Johnson

the playable guitars at the festival and talk with students about their experience.

This year's LaureLive is the third held at the Butler campus. A group of students at the Upper School participate with the event management company, Elevation Group, in organizing and presenting the two-day event.

Notable performers at this year's event include Foster the People, Fitz and the Tantrums, X Ambassadors and Daya on June 9; and Brandi Carlile, Cold War Kids and Trombone Shorty & Orleans Avenue on June 10.